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CUESTA

A Niagara Escarpment Commission Publication

SPRING 1980

What's Inside:

Welcome to **Cuesta**!

For those readers who are joining us for the first time, **Cuesta** is the Niagara Escarpment Commission's information magazine, and this is the fourth edition.

One of the things we have attempted to do in this issue is to point out to newcomers to the Escarpment debate that the Escarpment is not merely a 450-mile ridge of rock stretching from Queenston in Niagara to Tobermory on the Bruce Peninsula.

The Escarpment is a unique collage of forests, farms, recreational areas, wildlife habitats, dramatic scenic views, cliffs, hills, waterfalls, mineral resources, historic and archaeological sites, industrial sites, populated urban centres, villages and hamlets.

Today, in Ontario, the Escarpment contains more than 100 sites of geological significance including some of the best exposures of rocks and fossils of the Silurian and Ordovician Periods (405 to 500 million years old) to be found anywhere in the world.

Escarpment natural areas contain more than 300 species of birds, 53 species of mammals, 36 species of reptiles and amphibians, 90 fish species and 100 varieties of "special interest flora" including 37 types of wild orchids.

As we go to press, the public hearings on the Commission's Proposed Plan for the Niagara Escarpment are about to begin.

Cuesta interviewed the Chief Hearing Officer, Mr. Armour McCrae, and posed some questions to him that our readers may have regarding the hearing process.

Cuesta has focused attention on eight Escarpment area Conservation Authorities and what they have to offer the public in recreational and educational opportunities.

With this edition, we have enclosed a relief map showing the Escarpment; the location of the 116 existing and proposed Escarpment area parks (as recommended in the Proposed Plan); and the location of 19 Niagara Escarpment Commission geological plaques.

Cuesta has also summarized the highlights of the Niagara Escarpment Commission's Proposed Plan, for those who may not have had a chance to read the Commission's proposals for a Niagara Escarpment Plan.

We have also compiled a calendar of miscellanea, noting significant dates in the Escarpment history, dating back some 11,000 years.

In another article, we list Escarpment area ski centres — both downhill and cross country; and Escarpment area museums, with a capsule comment on what they have to offer the public.

Also, an article on Escarpment area archaeology and what recent digs have unearthed.

We extend an open invitation to those interested in learning more about the Escarpment to call us or drop by any of our three offices in Georgetown, Clarksburg and Grimsby, where we have permanent workshop-information centres, open to the public during working hours.

A special thanks to all the N.E.C. staff and those who have assisted in compiling information for this edition; in particular, Arthur Lightbourn, Pat Soper and Betty Braithwaite.

David Cossette

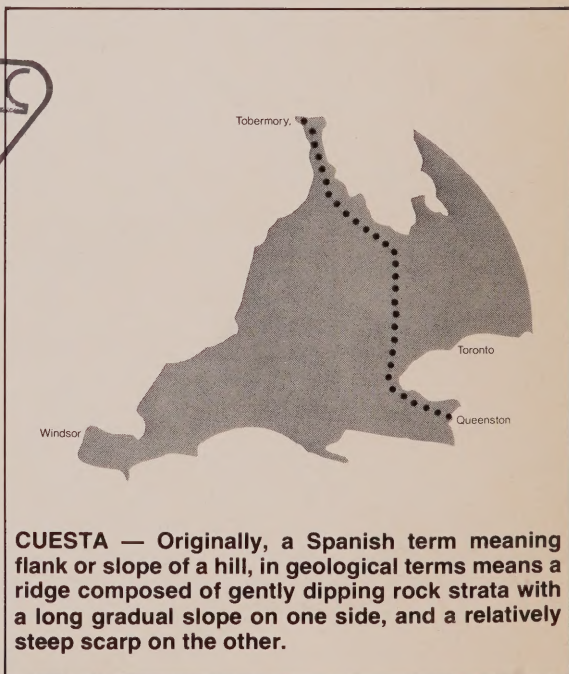
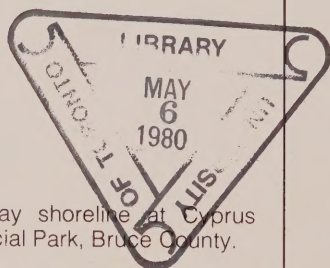
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Photo Credits:

Front Cover: Georgian Bay shoreline at Cyprus Lake Provincial Park, Bruce County.

Rear Cover: Beaver Valley farm scene near Epping, Grey County.

Photographs by David Cossette except as credited.



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FROM THE CHAIRMAN:

To date — since last November — 10,000 copies of the Niagara Escarpment Commission's Proposed Plan for the Niagara Escarpment have been distributed and are being studied throughout Ontario.

Public information workshops, at which Commission members, planners and information staff personnel met with the public on a one-to-one basis, were held in Toronto, Orangeville, Fonthill, Tobermory, Lion's Head, Collingwood, Caledon, Ancaster, Owen Sound, Honeywood, Milton and Duntroon. On-going information centres are maintained at the Commission's offices in Georgetown, Clarksburg and Grimsby.

The Commission and its staff met with council members and planning representatives from the four regions and four counties in the plan area, and with numerous municipalities and interest groups.

Public Hearings

As **Cuesta** goes to the press, the public hearings are about to begin and will continue until everyone who wants to make representations on the Proposed Plan has had an opportunity to present his or her views to the hearing officers.

How long the hearing process will take will depend, of course, on how many individuals and organizations wish to make presentations.

When the hearings have concluded, the hearing officers will, within three months, make their report to the Commission, with a copy to the Provincial Secretary for Resources Development.

The Niagara Escarpment Planning and Development Act stipulates that the hearing officers shall provide the Commission with a summary of the representations made together with a report stating whether the Plan should be accepted, rejected, or modified. Separate reports are also to be submitted on each area for which a hearing is held.

After considering the comments received from the public and the hearing officers' report, the Commission shall submit the Plan with any additional recommendations it may wish to make to the Provincial Secretary for Resources Development. Copies of these recommendations together with the reports of the hearing officers are to be made available for inspection at local Escarpment area municipal offices.

If the Provincial Secretary's recommendations to the Cabinet differ from those of the hearing officers, the public will be given a further opportunity to make representations to Cabinet before any final decisions are made.

Hearing Officers

Also, with regard to the hearings, I am delighted, as

I know the Commission is, that we were able to obtain the services of three experienced Ontario Municipal Board hearing officers to conduct the hearings on the Proposed Plan.

Armour McCrae, who has been a member of the Ontario Municipal Board for 21 years, is the Chief Hearing Officer for the Proposed Plan hearings.

Mr. McCrae will be assisted by **Walter Shrives**, who has served on the Board since 1965, and **M. Dean Henderson**, a chartered accountant who joined the O.M.B. in 1978 with more than 20 years' municipal experience.

Initial Reaction

The reaction to the Proposed Plan, since it was released last November, has been encouraging.

The consensus appears to be that the proposals are reasonable, workable, and, I believe, will be effective when adopted and implemented.

This, of course, was the intent of the Commission — to draft a Proposed Plan that would meet the objectives of The Niagara Escarpment Planning and Development Act — while respecting the rights of individuals who own property along the Escarpment route and answering the concerns of municipalities affected by the Plan.

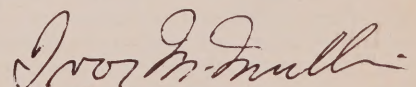
The Commission has emphasized that any agreements concerning land purchases or easement purchases by the government shall only be with "willing landowners" or at the request of landowners.

The Commission also suggested that much if not all of the implementation of the land use policies could be delegated to municipalities. We, as a Commission, will be most interested in the representations made to the hearing officers pertinent to this issue.

For this plan to work, the Commission realizes it will require the co-operation of everyone concerned with the Escarpment's maintenance — and that includes landowners, the general public, industrial and commercial interests and, of course, municipalities.

A summary of the Proposed Plan is included in this issue of **Cuesta** — but the plan is important and unique enough to be read in its entirety.

If you have not yet read the plan, I urge you to do so — and to participate in the public hearings — in support of the plan or with your suggestions for improving it.



Ivor McMullin,
Chairman,
Niagara Escarpment Commission

IN SUMMARY:

The Proposed Plan for the Niagara Escarpment

The Niagara Escarpment Commission's Proposed Plan for the maintenance of the Escarpment is now before the public.

In the last issue of **Cuesta** we summarized, for the record, the first draft of the plan called the Preliminary Proposals.

In this issue we have summarized the Proposed Plan primarily for readers who may not yet have had an opportunity to read the complete 84-page document.

However, we also urge our readers to obtain and read the complete text of the Proposed Plan for a more complete understanding of the "spirit" of the document and the various details that have been included to help guide its implementation.

Highlights

The Proposed Plan covers 1,923 square kilometres (742 square miles) and extends 725 kilometres (450 miles) from Queenston on the Niagara River to the Tobermory Islands at the tip of the Bruce Peninsula.

The Proposed Plan document consists of three major sections dealing with the proposed Land Use Policies, proposals for creation of a 116-parks Niagara Escarpment Parks System, and General Recommendations dealing with administration, implementation, the Bruce Trail, agriculture, mineral resources and other subjects of concern to the Commission.

Accompanying the plan are nine regional and county maps, tracing the Escarpment route through 46 municipalities; an index map showing the entire area covered by the plan; and three supplementary maps showing the Proposed and Existing Niagara Escarpment Parks, Provincially Significant Geological Areas, and Provincially Significant Nature Areas.

The writing style of the Plan is "plain English",

Commission Chairman Ivor McMullin said on release of the Plan in Collingwood on November 22, 1979.

"The Commission wanted to produce a document that met the objectives of The Niagara Escarpment Planning and Development Act, that was fair in its regard for landowners along the Escarpment and that took into account the concerns of municipalities," he explained.

"We also simplified the Plan considerably from the first draft Preliminary Proposals which consisted of 22 discussion papers each dealing with a specific land use or issue.

"In contrast, in the Proposed Plan, 92 per cent of the area in the Plan is covered by the three major land use designations — Natural Areas, Protection Areas, and Rural Areas.

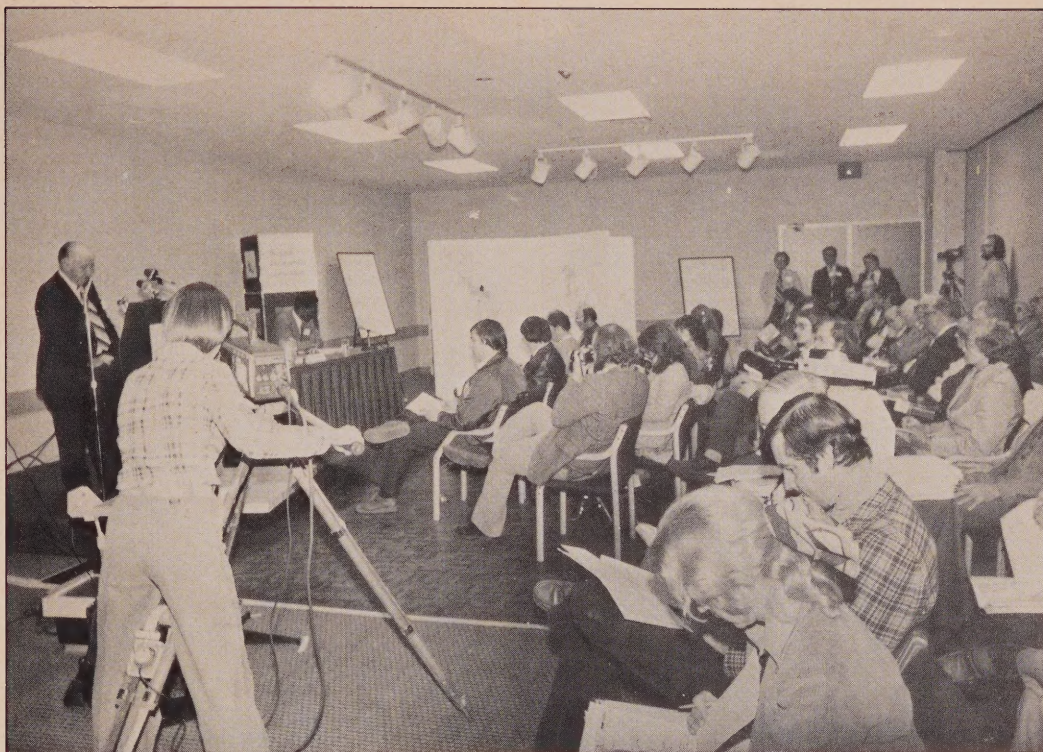
"And the Commission emphasized that any agreements on land purchase or easements by the government must be entered into only with 'willing landowners'. Co-operation is essential to the long-term success of the Plan," he pointed out.

Land Use Policies

The land use designations in the Plan are: Escarpment Natural Areas, Escarpment Protection Areas, Escarpment Rural Areas, Minor Urban Centres, Urban Centres, Escarpment Recreation Areas and Mineral Resource Areas.

The most sensitive and least disturbed areas of the Escarpment are included under the **Escarpment Natural Areas** designation which covers about 29 per cent of the area of the Proposed Plan.

In the Natural Areas, permitted uses include agriculture, recreation, forest and wildlife management, archaeology, and compatible single family dwellings on existing vacant lots which are not to be purchased for public use.



Press conference on the release of The Proposed Plan in Collingwood, November 22, 1979.

The **Escarpment Protection Areas** designation, covering about 35 per cent of the total plan area, includes Escarpment slopes and associated lands which are more developed than in the Natural Areas, but in which the Commission's policy is to maintain the remaining natural features and open rural landscape.

In the Protection Areas, one new lot may be severed for permitted uses — residential, agriculture, forestry and recreation, per 40 hectares (100 acres) or per original township lot.

The recreational uses recommended in the Protection Areas include golf courses, picnic sites, day-use sites and uses oriented towards land rather than requiring the building of major structures.

The **Escarpment Rural Areas**, which cover about 27 per cent of the area of the Proposed Plan, contain minor Escarpment landforms and associated lands which provide a buffer for the Natural and Protection Areas.

Compatible agriculture, forestry and low-density rural land uses are to be found here. Recreational uses include serviced campgrounds, golf courses and trailer parks.

Permitted uses would also include the creation of new licensed mineral extraction sites producing less than 20,000 Tonnes (22,000 tons) annually.

Where no lots have ever been severed, the Commission is proposing that up to two new lots may be created per 40 hectares (100 acres) of original township lot for permitted uses.

The plan also designates 33 villages and hamlets as

"Minor Urban Centres" where future growth may occur.

The Commission lists "growth objectives" for the urban centres designed to direct growth away from Escarpment Natural and Protection areas and lessen any potential urban growth impact on the Escarpment.

When the Niagara Escarpment Plan is adopted by the Cabinet, the approved growth objectives are to be incorporated into local official plans and by-laws.

The **Escarpment Recreation Areas** designation identifies primary recreational areas along the Escarpment and includes downhill ski areas, lakeshore cottage areas and marinas.

Permitted uses would include the expansion of recreational uses.

New residential lots may be created for recreation, preferably by registered plans for subdivision, condominium or other compatible forms of lot ownership.

The **Mineral Resource** designation identifies areas currently licensed for mineral extraction and areas which the Commission considers acceptable for future extraction.

The Commission recommends progressive rehabilitation of all extraction sites. No new extraction sites are to be permitted in the Natural or Protection Areas, with the exception of wayside pits in the Protection Areas.

The Commission recommends that agricultural land in the Escarpment area be maintained by municipalities applying The Ontario Food Land Guidelines.

(Continued on page 28)



Niagara Escarpment Commission Information Officer Patricia Soper explores Greig's Scenic Caves.

Stalactites and Stalagmites:

Limestone Caves Attract Visitors

Bev and Helen Greig own a 200 acre beef farm.

Now there is nothing particularly earth-shattering about a 200 acre beef farm except when it contains a spectacularly scenic view of Georgian Bay, twelve dramatic Escarpment limestone caves, and is open to the public.

The farm, located 18 miles north of Wiarton at Barrow Bay, has been in the Greig family for more than 80 years. Generations of Greig children have played in the caves, created by the pounding waters of glacial Lake Algonquin.

Approximately 18 years ago, the Greigs opened the "Scenic Caves" to the public.

Admission to the caves, in operation from May through October, is \$1.50 per adult.

To discover the caves, take County Road #19 from Wiarton approximately 15 miles to a sign "Greig's

Scenic Caves" which will point the way. Follow the direction from the farm house and set off on a half-mile hike which will take approximately one hour to complete.

The path traverses the top of an eroding limestone cliff which is heavily wooded and offers a spectacular view of the land below and Georgian Bay. The path turns sharply down, necessitating the use of a handrail to descend to the caves.

Take time to explore the caves. One cave is as large as a barn with limestone arches vaulting upward to form a cathedral ceiling. Other caves are quite small with seating capacity for only one; yet, others contain stalactites and stalagmites which form eerie shadows on the cave walls.

It's an unforgettable experience. ■

Cuesta Interview:

Three O.M.B. Members Conduct Public Hearings

A panel of three hearing officers has been appointed to conduct the public hearings on The Proposed Plan for the Niagara Escarpment.

In the following article, Cuesta interviewed Chief Hearing Officer Armour L. McCrae, a vice-chairman of the Ontario Municipal Board.

Mr. McCrae, a member of the Board for more than 21 years, is a former alderman and mayor of the City of Welland.

He is assisted on the hearing panel by Walter T. Shrives and M. Dean Henderson. Mr. Shrives, an O.M.B. vice-chairman, has been a member of the Board since 1965. Mr. Henderson is a chartered accountant who joined the O.M.B. in 1978 with more than 20 years municipal experience as Treasurer and Manager of the then Town, now City, of Mississauga.

The hearings are divided into two Phases:

Phase I hearings on general issues concerning The Proposed Plan are scheduled for Ancaster and Owen Sound; and Phase II hearings dealing with specific sections of the area covered by The Proposed Plan are being scheduled in or near the following centres: Lion's Head for Bruce County; Rocklyn for Grey County; St. Catharines for Niagara Region; Caledon East for Peel Region; Georgetown for Halton Region; Orangeville for Dufferin County; and Duntroon for Simcoe County. The Ancaster hearing will also deal with Phase II presentations on the Plan within Hamilton-Wentworth Region.

Cuesta: What is a public hearing? Is there any difference between a public hearing and a formal public hearing?

McCrae: A public hearing is any hearing which any member of the public can attend. As to the difference between a public hearing and a formal public hearing, the only difference would be that in a formal hearing the rules of procedure would be much stricter and would be laid down in the particular Act under which the hearing officers are sitting.

In the case of the Ontario Municipal Board, its whole procedure is outlined in the Ontario Municipal Board Act.

On the other hand, The Niagara Escarpment Planning and Development Act, under which we are sitting as hearing officers on the Proposed Plan, does not make this particular provision, but rather leaves it up to the hearing officers to draw up rules of procedure.

Cuesta: Are your hearings then considered simply public hearings or formal public hearings?

McCrae: I would say that these hearings would not be as formal as would an Ontario Municipal Board hearing but there must be some formality about them in order to ensure that the hearings are held in an orderly manner so that those members of the public who are making representations may make their case to the hearing officers and may make it knowing that they are not going to be disturbed by a lot of noise, shouting and so on.

We are trying to develop a procedure so that the average citizen will have no hesitation in coming before us, even if he is not represented by legal counsel.

Cuesta: What are the rules of procedure? Would you summarize these rules for us?

McCrae: Well, the rules of procedure are very basic for this kind of a hearing. It should be borne in mind that the rules of procedure are entirely within the jurisdiction and scope of the hearing officers. Similar rules have been used in the past in hearings of this type.

The Niagara Escarpment Commission will present the Proposed Plan and may be questioned on it at the hearings. This examination of the Proposed Plan in general terms, which we call Phase I of the hearings, will take place in Ancaster and Owen Sound to accommodate persons living in both the southern and northern areas of the Escarpment.

Immediately after Phase I, dealing with the general issues, the hearing officers will then deal with specific issues in the specific counties and regions covered by the Proposed Plan.



Chief Hearing Officer, Armour McCrae, examines The Proposed Plan with fellow hearing officers, Walter Shrives, left, and Dean Henderson, right.

The Ancaster hearing after dealing with Phase I will go on to hear Phase II representations applicable to Hamilton-Wentworth Region.

Phase II hearings are also being planned for locations in Bruce County, Grey County, Niagara Region, Peel Region, Halton Region, Dufferin County, and Simcoe County.

Notice as to the exact times, dates and locations will be provided in the press to the general public and directly to those people who have made application to be heard.

Representations may be made verbally or in writing and will not be made under oath or affirmation. If persons wish to retain counsel or agents to represent them, they may do so.

Any two of the hearing officers appointed to this hearing will be considered a quorum for hearing representations.

Cuesta: In your February 1980 advertisement of the hearings, you ask that anyone who wishes to participate in the hearings apply to you on or before March 10, 1980. Can arrangements be made after March 10 to be heard?

McCrae: Yes, as a matter of fact, we required this information so that we could schedule appearances before us. That does not mean others who are late or who have had to cancel an appointment will not be heard. We may have, at the conclusion of the scheduled hearings, what we call a supplementary hearing or hearings.

Cuesta: If a private citizen makes a representation before the hearing officers, may he be questioned?

McCrae: Anyone making a representation may be asked questions.

Cuesta: If I, as an interested party, make a written representation to the hearing, do I also need to

appear before the hearing officers to speak about the representation?

McCrae: You don't have to, but it should be borne in mind that if you have made a written representation to us and there are questions that arise in our minds, it then becomes a question of weight. If there are unanswered questions there, we might not be able to give the weight to it that you might think it should be accorded, unless you are there to talk about it.

Cuesta: How long do you anticipate that the hearings will continue?

McCrae: It is most difficult to predict the length of time of this hearing. We are aiming for a year, including the completion of our report to the Commission and the Provincial Secretary for Resources Development. However, it could go longer. We will be able to determine more realistically when we start getting in the applications from those who wish to appear.

Cuesta: What essentially shall the hearing officers be reporting on?

McCrae: Well, as the Act states, we will be reporting on the actual Proposed Plan for the Niagara Escarpment. Our position in the scheme of things is very clearly set out in the Act itself where it states that we shall hear from the Commission as to what the Plan is all about and any other pertinent facts.

We shall hear from the public, the municipalities and other interest groups as to how the Plan affects them, and from those in support or in opposition.

But when you narrow it down, in the final analysis, as the Act states, we will be reporting to the Commission, with a copy to the Provincial Secretary for Resources Development, as to whether the Plan should be approved, rejected, or modified. ■

Sliding Down And Around The Escarpment

One thing for sure about the Niagara Escarpment.

People love climbing all over it.

And, given a chance, they can't resist sliding down it.

In winter and in summer.

They come by the thousands — alpine skiers, cross-country buffs, grass skiers who can't wait for the snow, and those latest arrivals, the folks who hurtle down Blue Mountain on the 900 metre (3,000 ft.) Great Slide Ride and soon-to-be completed 120 metre (400 ft.) Water Slide during the summer months.

All of these facts were recognized by the Niagara Escarpment Commission when it drafted the Proposed Plan.

The idea, the Commission said, was to achieve a proper balance between the preservation of Escarpment resources and the development required to support tourism and recreation.

The preservation aspect was stressed in areas designated Escarpment Natural Areas. The Escarpment Recreation Areas on the other hand, provided for more intensive recreation activities and facilities such as skiing, boating, cottages, chalets, lodges and various supporting services.

Despite the scarcity of snow this past season, the fact is the Escarpment provides some of the best skiing in Ontario.

Thirteen ski resorts, numerous private ski clubs and dozens of cross-country trails are located along the Escarpment.

In the Collingwood area, the Escarpment provides alpine skiers not only with the province's greatest vertical drop — 245 metres (820 feet) — at Georgian Peaks, but also the longest beginner slope in the province — 1220 metres (4,000 feet) — at Blue Mountain.

Nestled close together in the Beaver Valley, the Talisman Resort has 65 acres of mainly intermediate terrain with eight runs, Old Smokey has five runs with a maximum length of 1200 metres and a vertical drop of 180 metres (600 feet) and Beaver Valley offers six runs with maximum length of 1275 metres and a vertical drop of 150 metres (500 feet).



In the Orangeville area, alpine skiing is available at Hockley Hills, Valley Schuss and at Cedar Highlands Ski Club.

Other Escarpment ski hills open to the public are located at the Caledon Ski Club, Glen Eden Ski Area operated by the Halton Region Conservation Authority in Milton, the Chedoke Winter Sports Park and the King's Forest Winter Park in Hamilton, the Fonthill Ski Centre and Harrison Park in Owen Sound.

In addition, cross-country trails are available for enthusiasts at Hockley, Talisman, Blue Mountain and Georgian Peaks and at scores of public conservation areas and private sites throughout the Escarpment area. For your Escarpment information file, **Cuesta** has compiled the following unofficial capsule ski guide to the Niagara Escarpment.

(Continued on page 32)

250 Sites

Ancient Life Along Escarpment Probed by Archaeologists

Although it has never been widely publicized, some of the most significant archaeological sites in Ontario are located along the Niagara Escarpment corridor.

When the Niagara Escarpment Commission was researching the resources of the Escarpment, the Ministry of Culture and Recreation was asked to prepare a report on the location of known sensitive archaeological sites in the Planning Area and any recommendations it might wish to make for protecting these sites.

The subsequent report, written by archaeological planner P. J. Carruthers, concluded that the Escarpment cuts through "at least three regions with tremendous archaeological research potential" — the Niagara Peninsula, the Hamilton-to-Georgetown segment of the Escarpment, and the Blue Mountain segment.

It has been estimated that there are some 250 archaeological sites located along the Escarpment corridor, the majority of which have not been fully excavated.

"Archaeology is time and labour intensive," Carruthers explained. "That means it takes money, and unfortunately money is not always readily available. So excavations often have to wait."

Excavations are often funded by universities, museums, the Ontario Heritage Foundation and the Ministry of Culture and Recreation.

"The fact remains," Carruthers said, "that the Escarpment corridor is a boon to the archaeologist because it has tended to focus human settlement in certain areas even from earliest times."

Where people gathered and lived, even for short periods, they invariably left traces of their life and death styles — bits and pieces of tools, implements, utensils, artifacts and burial sites.

Points of Focus

On the Escarpment, the points of focus for settlement were often areas where there were breaks in the rock ridge which allowed passage of people and game.

By zeroing in on these locations and by carefully unearthing and recording these fragments from the past, archaeologists are gradually reconstructing a picture of how men and women lived and died along the Escarpment over the past 11,000 years.

The oldest archaeological sites identified on the Escarpment are those of the early post-glacial peoples of the period 9000 to 5000 B.C. Archaeologists call this the Palaeo-Indian/Plano Period.

Remains of camps from this period have been found in the Collingwood area, Mount Nemo, Rattlesnake Point, and on some sites west of Hamilton.

Sites of the hunters and gatherers of the Archaic Period (5000 B.C.-1000 B.C.) have been found in the sand dunes on the Bruce Peninsula, along the Nottawasaga and Credit Rivers, near tributaries between Georgetown and Hamilton, in the Milton-Lowville area, and in the Jordan Harbour area.

A project designed to map and date Indian campgrounds was implemented by York University's geography department during 1973-1979.

The students uncovered a unique archaeological site in Burlington, believed to be more than 3,000 years old and representative of the Late Archaic Period.

Arthur Roberts, an archaeological and doctoral student, said that, unlike most Indian sites in Southern Ontario, the Burlington site has not been ploughed or significantly disturbed; therefore, there is potential for accurate carbon dating.

This dig was subsequently financed by grants from the federal government and the Ontario Heritage Foundation.

Other surveys have been done by the same group of students along the north shore of Lake Ontario, stretching from Port Hope to Burlington, and also in Napanee. In all, the students have some 600 sites under scrutiny.

Isolated campsites of the Early Woodland Peoples (1000 B.C.-600 B.C.) have been discovered in the Niagara, St. Catharines, Hamilton and Georgetown areas; sites of the Middle Woodland Peoples (500 B.C.-500 A.D.) consisting of small villages, campsites and burial areas are concentrated in the northern area of the Escarpment; and at least 16 Terminal Woodland (500-1550 A.D.) village sites have been identified from Hamilton north to the Bruce. Excavations, however, have been carried out at only a few of these.

In many archaeological excavations, accurate dating can prove difficult if the area has been disturbed.



Archaeological dig in Nottawasaga area.

There do exist, however, some sites where this difficulty has been overcome and which provide a record of the interval of occupation with extreme accuracy. One such site is Crawford Lake.

Crawford Lake

Indian inhabitation at Crawford Lake Conservation Area, near Milton, was first suspected in 1971 when a substantial count of maize pollen was found in sediment samples from the small meromictic lake (a lake in which there is only partial water turnover during the spring and fall). The small surface area (7 acres) and the extreme depth (80 feet) causes this unusual phenomenon. Without the annual water turnover, there is little dissolved oxygen present below 40 feet, and, without oxygen, the bacterial breakdown of organic material is lessened.

The sediments on the bottom remain preserved and provide an accurate record of the type of civilization and plant life which has surrounded the lake over the past 15,000 years.

The presence of cultivated maize pollen in samples of lake sediment indicated that an ancient Indian cornfield was located adjacent to the lake. Maize pollen, because of its weight and size, does not disperse far from the parent plant.

Thomas Howard, who formerly owned the land to the north of Crawford Lake, directed the archaeologists' attention to the spot where he previously had found artifacts.

Under the direction of Dr. McAndrews and Dr. William Finlayson of the University of Western On-

tario, an archaeological excavation was started on the site in 1973 with the assistance of the Halton Region Conservation Authority.

For the first time, it was possible to combine archaeological evidence with chronologically accurate fossil pollens.

This dating procedure proved so accurate that this particular Indian Village could be dated more specifically than any other similar excavation.

The estimated interval of occupation was from 1340-1350. In this locale, the native peoples of this period were members of the Middleport tribe, ancestral forerunners of the Iroquois and Algonquin Indians.

The presence of two *Middleport Oblique* rimsherds (a fragment of the rim of an earthen vessel), one *Ontario Horizontal* rimsherd, one *Middleport Criss-Cross* rimsherd and an *Iroquois Ring* pipe bowl in the surface collection support the occupation period.

The final or Historical Period (1550-1650 A.D.) reflects European influences on the native peoples. Villages developed into large fortified towns of up to 15 acres in size. Iron axes and implements gradually replaced those made from ground stone. Metal knives and chisels replaced flint-like tools and, although firearms never fully replaced bows and arrows, metal arrowheads were substituted for those of stone.

There is no evidence of firearms in Neutral country and the use of the bow and metal-tipped arrow persisted until 1653.

(Continued on page 40)



Indian Carving?

Escarpment Mystery Face Baffles the Experts

The forces of nature may have carved scenic beauty into the features of the Niagara Escarpment, but the hand of man carved a mystery.

Shrouded in vegetation, the carved Niagara Escarpment "mystery face" was recorded in 1953 by George Pepper at the top of an Escarpment trail near Beamsville. Known as "Adam Steps", the trail is located between Cave Springs Road and Quarry Road, one mile south-east of Beamsville on the Cave Springs feature.

Pepper, with great foresight, made a clay impression of the carving. Using the impression as a mold, he then prepared a plaster cast of the carving.

Pepper, formerly of Niagara Falls — whom **Cuesta** staffers have been unable to locate — in 1961 presented the plaster cast to Lundy's Lane Museum in Niagara Falls with a letter testifying to its authenticity. In the letter he revealed that the original carving had subsequently been destroyed. How or when, he did not say. His facsimile of the carving was also recorded at the Royal Ontario Museum by Professor Kenneth E. Kidd, Curator of Ethnology.

Cuesta contacted the now-retired Professor Kidd at his home in Peterborough.

The former Curator of Ethnology readily recalled the "mystery face" carving. He said that he had visited the site and photographs were taken of the carving.

Dr. Kidd, an authority on the Indian art of Southern Ontario, said: "I definitely saw one remaining head, in high relief, on the face of the rock, near the top of the path. I recall that it was about five inches in height and it was done with considerable skill and ability. From my knowledge of Iroquois art I would judge that it was done by someone belonging to the Iroquois culture. Since the carving is in Neutral Country, there seems to be high probability that it was done by a Neutral Indian".

Although the carving could not be accurately dated, we do know that the Neutrals occupied the area until about 1650. Caves in the vicinity have been the sites of archaeological finds of axes, arrows, and other implements of the Neutral culture.

How long ago was the carving made? Who was the anonymous artist? Was the carving removed from the site or actually destroyed?

Today, generations later, we can only speculate on the answers.

If any of our readers have any relevant information to add, please contact:

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Georgetown, Ontario,
L7G 4B1.

Recreation Areas:

Conservation Authorities Offer Wealth of Outdoor Activities

Bored with the Bahamas?
Refuse to rush to Rio?
Frazzled by Florida?
Have we got the answer for you!
Put away those travel brochures and discover why thousands of tourists each year are enjoying and experiencing the wealth of recreational activities available through eight Escarpment area Conservation Authorities.

These eight Conservation Authorities provide a wide variety of recreational opportunities while allowing public access to one of Canada's most scenic and significant landforms — the 450-mile Niagara Escarpment corridor.

In recognizing the important role of the Escarpment area Conservation Authorities, one of the key recommendations in the Commission's Proposed Plan is the creation of a Niagara Escarpment Parks System.

The proposed 95,844 acre system would consist of 67,174 acres currently in public ownership in addition to 28,670 acres which the Commission recommends should be purchased by the province.

Some of the most scenic land is under the jurisdiction of local Conservation Authorities.

The proposed 116 Escarpment Parks would form a sub-system of the provincial parks system with individual parks to be managed by the Ministry of Natural Resources or by Escarpment area Conservation Authorities.

Whether it is the quiet solitude of a nature trail or the bustling activity of a camping area that nudges you outdoors, Escarpment area Conservation Authorities offer a viable alternative to expensive vacations.

Cuesta decided to have a look at each Conservation Authority with recreational lands along the Escarpment. Each of the eight Conservation Authorities has recreation area holdings which go well beyond the Escarpment.

Here's a summary of what the more popular areas have to offer:

The Niagara Peninsula Conservation Authority

Since its establishment in 1959, the Niagara Peninsula Conservation Authority has purchased 4,200 acres of land for conservation purposes. Authority programs revolve around the proper management of natural resources — land, water, wildlife and forests.

1. Ball's Falls

This 90-hectare (220-acre) park situated on the Twenty Mile Creek south of Jordan is the site of the Authority's Historical Park. The restored Grist Mill, Blacksmith's Shop, two barns, lime kiln, and the restored Ball Home make this a worthwhile outing for children and family alike.

The extensive natural area in the Park is used for year-round trail activity. A dazzling display of spring wildflowers and the Bert Miller Arboretum are of interest to many naturalists.

Campgrounds and picnic sites are open to the public during the summer while the winter season is equally popular for tobogganing, skiing and snowmobiling.

2. Beamer Memorial

This 50-hectare (125-acre) park, situated on Forty Mile Creek south of Grimsby, has a deep "V" shaped valley and associated cliff faces offering an excellent scenic view over Lake Ontario. There are picnic sites and several trails on the property, including the Bruce Trail for hikers, from which the spring migration of an array of birds may be viewed.

3. Louth

This 32-hectare (78-acre) park, situated on Sixteen Mile Creek south-east of Jordan, has some breathtaking Escarpment scenery and a waterfall. It is a favourite year-round spot for naturalists.

4. Mountainview

This 25-hectare (62-acre) park, west of Beamsville, is used for trail orienteering and by naturalists year-round.

5. Rockway

This 85-hectare (210-acre) park is located on Fifteen Mile Creek west of St. Catharines. A pronounced river valley and a major waterfall make this area a mecca for naturalists. A wide variety of natural habitats, including wooded slopes containing an abundance of wildflowers and examples of Carolinian vegetation, are to be found here.

The Bruce Trail and other trails cross this property which is used in winter for cross-country skiing and other winter sports.

6. St. Johns Conservation Area

This impressive 32-hectare (78-acre) nature area north of the Village of Fonthill, includes a former gravel pit and is preserved as a special use area.

Essentially a nature preserve, this area supports a wide variety of natural vegetation including Carolinian species uncommon to the region.

The area also has a three-acre trout pond, stocked by the Authority. Use of this nature area is designed to incorporate its full potential for scientific, educational and recreational pursuits.

An outstanding outdoor education centre is extensively used by local school classes and special interest groups for nature study and ecological investigations.

The combination of the area's physical characteristics and its proximity to the St. Catharines area make it a popular nature appreciation centre.

7. The Vineland Quarry Sugar Bush

Located off Cherry Avenue in Vineland, this area is used for the demonstration of maple syrup production from Indian methods to a modern evaporation system. It is also the site of the annual "Sugarfest" festival and guided tours through the sugar bush can be arranged for groups. For further information phone (416) 892-2621.

8. Woodend Conservation Area

This 37-hectare (92-acre) property contains a series of well-marked, self-guiding nature trails.

The site is used by the Y.M.C.A. as a day camp for children and families enjoy the picnicking facilities. A large house on the site is under construction as a conservation and education centre to serve community groups.

The Hamilton Region Conservation Authority

The Hamilton Region Conservation Authority was formed in 1966 as the successor to the Spencer Creek Conservation Authority (1958-66). Its purpose and function is to carry out a comprehensive program of natural resources management within the 185-square mile area of its jurisdiction which include the combined watersheds of the Spencer, Borer's, Spring, Sulphur, Ancaster, Chedoke, Redhill, Stoney, Battlefield and Fifty Mile creeks.

9. Spencer Gorge Wilderness Area

This 53-hectare (130-acre) park, adjacent to Bullocks Corners, is used for hiking, viewing and picnicking.

10. Crook's Hollow

This 20-hectare (50-acre) park, situated near Greensville, includes facilities for picnicking, fishing, hiking and historical interpretation.

11. Christie Conservation Area

This 345-hectare (850-acre) park near Peters Corners is a multi-purpose conservation project used for swimming, boating, fishing and picnicking.

The Christie Conservation Area has become a major year-round recreation facility for Hamilton area residents. The beach, with its chlorinated swimming area, is the most popular summer attraction here while excellent picnic areas, boat and canoe rentals, and nine fishing ponds stocked with speckled and rainbow trout offer additional recreational opportunities.

Christie, with its 5½ miles of groomed cross-country ski trails, ski rentals and variety of terrain has also become a popular winter vacation area.

12. Summit Bog Muskeg Preserve

This 12-hectare (31-acre) nature preserve south of Copetown is a kettle bog (a bog created by the melting of a large mass of ice buried during glaciation, thus creating a bowl shaped depression) with representative vegetation patterns — recommended for naturalists with sturdy boots — preferably water-proofed!

13. Dundas Valley Conservation Area

The western portion of the Dundas Valley contains important nature and geologic areas. Designated as a Nature Reserve Park the 160-hectare (400-acre) park west of the Town of Dundas is used for hiking and cross-country skiing.

The eastern portion of the Dundas Valley is designated as a Natural Environment Recreation Park. This 400-hectare (1,000-acre) multi-use park includes picnicking, a trail centre, hiking, bicycling and cross-country ski trails.

A trail centre, opened in 1978, is the Authority's most ambitious project to date in passive recreation and acts as the focal point of the 19-mile Dundas Valley hiking trail system.

14. Tiffany Falls

This five-hectare (13-acre) park situated north-east of Ancaster, is used for hiking and nature interpretation.

15. Mount Albion

This 50-hectare (120-acre) park, south of the City of Hamilton, is used for cross-country skiing, hiking and has a scenic lookout.

16. Felker's Falls

This 15-hectare (38-acre) park located east of Mount Albion is used for picnicking and hiking. It has a scenic lookout featuring a gorge and waterfall.

17. Devil's Punch Bowl

A popular scenic picnic area, this 25-hectare (63-acre) park south of Stoney Creek, is an interesting geological site which contains a waterfall and a gorge.

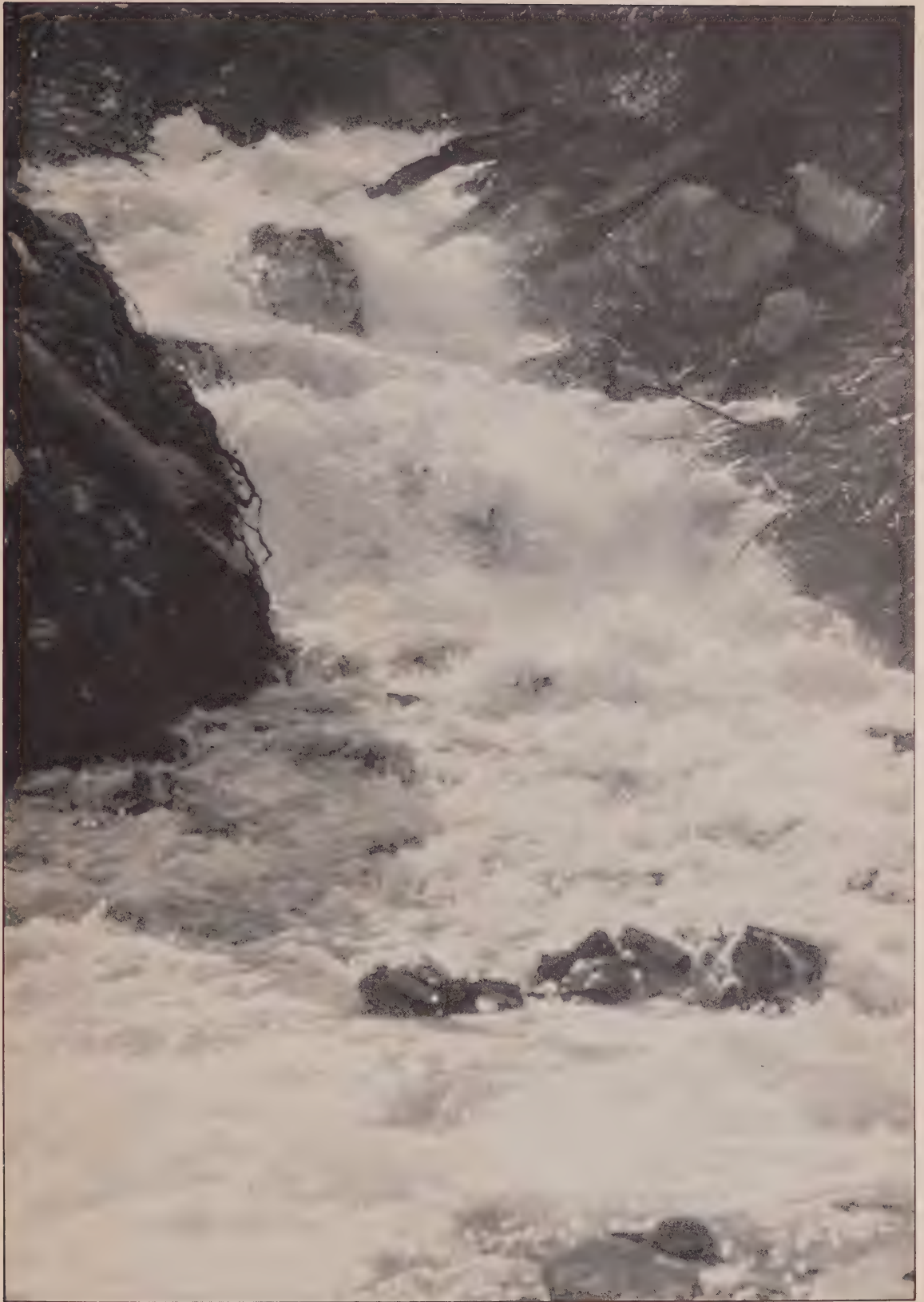
18. Vinemount Conservation Area

This 16-hectare (40-acre) conservation area near Vinemount is used for hiking and picnicking.

19. Winona Conservation Area

A natural four-hectare (10-acre) site located on Escarpment property south of Winona.

(Continued on page 14)



Escarpment stream flowing into Georgian Bay on the Bruce Peninsula.

The Halton Region Conservation Authority

The Halton Region Conservation Authority offers a wide range of recreational facilities to the public. Scenic areas for hiking, cross-country and down-hill skiing are located within easy driving distance for residents of the Golden Horseshoe area.

20. Crawford Lake Conservation Area

An archaeological site adjacent to this ecologically sensitive meromictic lake is an important feature of the area, located 2½ miles south of Highway 401 near Milton. Due to the delicate ecological balance of the lake, swimming and intensive recreational use of the lake are not permitted; however, hiking, cross-country skiing and picnicking are enjoyed by those who visit this natural area.

21. Esquesing and Escarpment Tract

This 42-hectare (105-acre) natural area north of Milton Heights is an outstanding example of mature mixed forest and is planned for use as a forest-oriented passive recreation area. Development to date has consisted of forest and stream improvements and a nature trail.

22. Hilton Falls

This 525-hectare (1,300-acre) park north-east of Campbellville includes the Sixteen Mile Creek and associated Hilton Falls. The area attracts increasingly large numbers of hikers and cross-country skiers who enjoy the inherent beauty of the trail system.

23. Kelso

This 235-hectare (580-acre) park near Milton, just south of Highway 401, has developed into the Halton Region Conservation Authority's most attractive recreation area and, subsequently, one of the most popular in the province.

As a regional recreation centre, Kelso is open year-round and operates facilities such as downhill skiing, a beach and boating area, picnicking and group camping area.

24. Rattlesnake Point

A 93-hectare (230-acre) park near Milton was acquired to preserve and protect this well-known landmark on the Niagara Escarpment, as well as to protect a large forest area containing springs and catchment waters which feed the Twelve Mile Creek.

The area is used for picnicking, group camping, hiking, rock climbing and is well known for the scenic view of land below the Escarpment.

Other areas of interest in Halton Region Conservation Authority are: **Tirion Tract**, a 20-hectare (50-acre) Nature Reserve Park; **Scotch Block**, a 45-hectare (110-acre) flood control reservoir; **Mount Nemo**, a 98-hectare (245-acre) Nature Reserve area used for hiking; **Twiss Tract**, a 20-hectare (50-acre) Natural Environment Recreation Park used for hiking; and **Lake Medad**, a 28-hectare (68-acre) Nature Reserve Park in Flamborough Township which includes a peat bog.

Although not part of Halton Region Conservation Authority, the **Yaremko-Ridley Property** provides an important link between the Authority's holdings at Twiss Tract and Crawford Lake. The 160-acre scenic property, a gift to the Ontario Heritage Foundation, is located north of Kilbride, in the Town of Milton.

The Credit Valley Conservation Authority

The 418-square miles of the Credit River watershed include the headwater areas in Mono, Amaranth, East Garafraxa and the Town of Orangeville. Major tributaries also rise in the Town of Caledon, Erin Township, Halton Hills and Brampton.

The Authority has purchased approximately 5,000 acres of land in the Credit Valley, to protect headwater wetlands; to manage and conserve valley floodplains; to provide access to Lake Ontario by keeping shorelines in public ownership; and to protect environmentally sensitive areas from development pressures.

About 20 per cent of this land has evolved as multiple-use conservation areas used year-round for conservation, education and recreation oriented programs.

25. Limehouse

The Limehouse area just west of Georgetown consists of 77 hectares (190 acres) on the Black Creek. Scenic hiking trails, an abandoned limestone quarry, kilns and the remains of a mill are included on this historical site.

26. Terra Cotta Conservation Area

This 180-hectare (450-acre) property is divided into Terra Cotta North East and Terra Cotta South. It is located one mile north of the Village of Terra Cotta, west from Victoria off Highway #10.

The diversity of land from flat playing and picnic areas to rocky forested gorges and hiking trails lends this site to a wide variety of year-round recreational uses. Five spring-fed trout ponds enhance the beauty of the area. Swimming is permitted in a supervised one-acre pool.

27. Belfountain

This 10-hectare (25-acre) park is located within the Village of Belfountain, near the Forks of the Credit. This historic site has been operated by the Authority since 1960 and is an area of attraction for photographers, artists and those who simply enjoy the scenery.

Boardwalks have been extended along the steep south slope of the gorge and a shallow swimming area has been constructed in the Credit River.

28. Silver Creek Conservation Area

The Escarpment and Silver Creek gorge highlight this 520-hectare (1,280-acre) property. Heavily wooded rugged rock formations and the steep face of the Escarpment combine to make this a favourite with hikers.

The Metropolitan Toronto and Region Conservation Authority

The Metropolitan Toronto and Region Conservation Authority was established in 1957 and is an amalgamation of four former Authorities. The principal work of the Authority is in the field of water management and flood control.

The Authority has responsibility over a 1,339-square mile area and offers varied recreation facilities for Torontonians in such areas as: Heart Lake, Boyd, Albion Hills, Glen Haffy, Black Creek, Claremont and Cold Creek.



Top of Inglis Falls, Grey County.

Extensive education programs are operated at several conservation areas including Black Creek Pioneer Village, Albion Hills Conservation Farm, and the Boyd Conservation Education Complex, the focal point of which is the Kortright Centre.

Although not situated within the Niagara Escarpment planning area, the Kortright Centre is of such significance in the field of conservation education it should be mentioned.

Interpretative programs for students and the public alike are carried out on a continuing basis. The multi-level structure houses a 120-seat auditorium, a lecture theatre, and meeting rooms. Exhibits and displays reflect the key themes of the Centre . . . forest . . . wildlife . . . land . . . and water.

Visitors to the more than three miles of major trails on the property can observe managed woodlots, ponds, streams and wetlands abounding in aquatic life, land-use demonstrations, beekeeping and maple syrup operations, a sawmill, an early 20th century farm and a modern farm with crops and animals.

Metropolitan Toronto and Region Conservation Areas directly within the area of the Proposed Plan for the Niagara Escarpment are as follows:

29. Kolodziej Property

This 35-hectare (86-acre) natural property is situated along the Humber River just north of the Village of Mono Mills. It is used for picnicking, cross-country skiing and hiking.

30. Humber Forest

This 220-hectare (550-acre) forest area in the upper reaches of the Humber River contains the Sleswick swamps. It is an area of mixed swamp forest, low lying deciduous trees and interesting natural vegetation.

31. Glen Haffy

This 390-hectare (970-acre) property is located along the Humber River south of the Village of Mono Mills. The area is used for fishing, hiking, picnicking, group camping and cross-country skiing.

Nottawasaga Valley Conservation Authority

The Nottawasaga Valley Conservation Authority has responsibility over some 1,210 square miles of land and water. The Authority currently owns 2,185 hectares (5,400 acres) of land.

The Authority's concern is focused on the maintenance, renewal, protection and management of the natural resources of its watersheds.

The Authority combines conservation practices while also providing recreational opportunities for the public.

32. Mono Cliffs Conservation Area

The property adjacent to Mono Centre is shared by the Ministry of Natural Resources which owns 629 hectares (1,530 acres) and the Nottawasaga Valley Conservation Authority which owns 97 hectares (240 acres).

(Continued on page 30)

The Niagara Escarpment's

11,000 YEAR-OLD CALENDAR OF MISCELLANEA

9000 BC to 5000 BC — First evidence of human occupation in the Collingwood and Hamilton-Dundas Valley areas of the Niagara Escarpment by Palaeo Indians following the recession of ice in the last glacial period about 11,000 years ago.

5000 BC to 1000 BC — The Archaic Period. The remains of hunting sites from this period have been discovered throughout the Escarpment area from dune and sandbar locations in the Bruce Peninsula to Jordan Harbour in the Niagara Peninsula.

1000 BC to 600 BC — Isolated campsites of Early Woodland Peoples from this time have been discovered in the Niagara, St. Catharines, Hamilton and Georgetown areas. These peoples are noted for their use of ceramics and the ceremonial burial of their dead.

500 BC to 1500 AD — Native peoples living along the Escarpment changed from a pattern of hunting and gathering to one in which agriculture played an increasingly important role in their lives. About 16 Terminal Woodland archaeological sites have been found along the Escarpment route.

1550 to 1650 — European influences affected the native peoples. The archaeological data still to be explored from this Period along the Escarpment offers valuable opportunities for closer study of the impact of European influences on native peoples.

1616 — Samuel de Champlain discovered an Indian encampment in a region called by the Indians "Wadineednon" or "Beautiful Valley" — the current site of Owen Sound.



Brock Monument, Queenston.

1669 — La Salle landed nine canoes on Burlington Beach at a site now known as La Salle Park, traded with the Indians living in the area and contacted a fever that struck when he reportedly was confronted by three rattlesnakes.

1679 — The Griffon — a 60-foot oak vessel carrying five guns and built under the orders of the French explorer La Salle — disappeared. Her fate remains a mystery. In 1955 the remains of a wreck reputed to be that of the Griffon were discovered within sight of the Escarpment, off Russell Island at the tip of the Bruce Peninsula. The authenticity of the find is unconfirmed.

1755 — The community of Twenty-Mile Creek was established and eventually settled by Loyalists and Mennonites. The town was later renamed Jordan. Above the town, on top of the Escarpment, is Ball's Falls, which powered several mills and was of strategic importance during the War of 1812. Ball's Falls is a conservation area today, administered by the Niagara Peninsula Conservation Authority.

1780's — Settlement of the southern section of the Niagara Escarpment began with hundreds of United Empire Loyalists who fled during and after the American Revolution. They settled along the streams which tumbled down from the Escarpment and named the streams with numbers according to their distance from the Niagara River.

1792 — The Village of Queenston was named for the Queen's Rangers who were stationed in the area. The village was originally called West Landing.

1798 — The area where Burlington now stands was purchased by the British from the Mississauga Indians.

1799 — First country fair in Ontario was held in Queenston.

1802 — Establishment of Upper Canada's first distributing post office at Queenston by Alexander Hamilton.

1812 — The Battle of Queenston Heights was fought during which General Sir Isaac Brock, the commander of the victorious British military forces, was killed by an American sharp-shooter as Brock led a charge up the Escarpment to regain a captured battery.

1812 — Winona, which is now part of the Town of Stoney Creek, was established and, as legend has it, was renamed for Tecumseh's daughter, the Princess Winona, who is said to have leaped to her death from the edge of the Escarpment above the townsite.

1813 — British troops, guided by 19-year-old Billy Green, surprised and attacked an American encampment of 3,000 soldiers at Stoney Creek, forcing the Americans to retreat.

1813-1816 — Farmland at the base of the Escarpment between Niagara and York, owned by merchant George Hamilton, was surveyed into town lots and became the new district seat and present-day City of Hamilton.

1814 — The Bloody Assizes held in Ancaster's Union Hotel, tried 19 American collaborators from the War of 1812 and convicted 15 to be hanged. Subsequently, seven were reprieved but banished and eight were executed at the military encampment on Burlington Heights at the north-western end of Burlington Bay.

1822 — Settler Joseph Martin established a grist mill and sawmill in an area which was named after him — Martin's Mills. The town name was later changed on his suggestion to Milton, in honour of the poet John Milton whom Martin greatly admired.

1823 — Settler George Kennedy purchased a 200-acre tract in the lee of the Escarpment, built a sawmill and eventually saw the town which grew up in that area named after him — Georgetown.

1824 — William Lyon Mackenzie launched the *Colonial Advocate* newspaper in Queenston. Mackenzie later became Toronto's first mayor and leader of the Rebellion of 1837.

1829 — First Welland Canal completed, crossing the Niagara Escarpment and providing a navigable waterway for the first time between Lakes Erie and Ontario. The first locks were built of timber and were eight feet deep.

1830 — Lewis Horning, a settler from the Hamilton area, went north and established Horning's Mills — but the disappearance of his four children, believed kidnapped, eventually caused Horning, broken-hearted at his loss, to leave the area.

1842 — Second Welland Canal was built of stone quarried from the Escarpment.

1850's — Commercial orchards established in the Niagara Peninsula.

1852 — The Town of Hens and Chickens was chosen as a northern railway terminus. The town name was later changed to Collingwood after a British admiral who was Nelson's second-in-command at Trafalgar.

1853 — A settler named Brownlee discovered Eugenia Falls and started a short-lived local gold rush. The yellow metallic substance at the base of the Falls, however, turned out to be pyrite or "fool's gold". The Falls were named after the French Empress Eugenie, wife of Napoleon III.

1857 — The first Beamsville Country Fair was held. Exhibits included a 2-foot long carrot. The fair broke up with a free-for-all by local youths throwing vegetables and fruits until the exhibitors had to pack up and go home.

1865 — The first canning factory in Canada was built in Grimsby by W. Kitchin.

1870 — Third Welland Canal was built.

1876 — The City of St. Catharines was incorporated.

1882 — The paddlewheeler Asia sank on her run from Owen Sound to Manitoulin Island with the loss of more than 200 passengers and crew.

1891 — Ancaster Municipal Treasurer John Heslop was shot to death defending municipal tax money during a robbery attempt in a house known as Woodend which currently houses the offices of the Hamilton Region Conservation Authority.

1892 — The first of two incline railways was built up the face of the Escarpment in Hamilton. Today, only the scars left by the tracks remain on the face of the Escarpment.

1896 — "The five Johns", Dickenson, Gibson, Moodie, Patterson and Sutherland, developed their idea for the long distance transmission of electricity, bringing electric power to Hamilton from DeCew Falls on the Escarpment near St. Catharines.

1897 — The charter of the Women's Institute was drawn up by Adelaide Hoodless in the home of Erland Lee on the Escarpment above Stoney Creek.

1898 — Construction was begun by parishioners at Lowville on the Church of St. George, constructed of stone hand-hewn from the Escarpment.

1908 — The Great Bush Fire consumed most of the Bruce Peninsula, north of Cape Croker.

1917 — Sir Adam Beck Niagara Generating Station Number One was named after the man who in 1903 was appointed to investigate the development of electric power from Niagara Falls, the Escarpment's most dramatic viewpoint. Beck served as Chairman of Ontario Hydro from 1906-1925.

1952 — The Niagara Grape and Wine Festival began in St. Catharines.

1960 — The Bruce Trail idea was proposed by Raymond Lowes and in 1963 the Bruce Trail Association was incorporated.

1964 — Brock University, built on the Escarpment overlooking St. Catharines, opened its doors to students.

1968 — Professor Leonard Gertler, University of Waterloo, chosen to conduct a wide-ranging study of the Escarpment area which, when completed, was known as "The Gertler Report".

1973 — The passage of The Niagara Escarpment Planning and Development Act, 1973 and the appointment of a 17-member commission.

1973 — Welland Canal seven mile by-pass completed so that ships no longer had to pass through the centre of Welland. The Canal is approximately 25 miles long and in its locks lifts lake freighters and other vessels 325 feet up the Escarpment on their way to the Upper Lakes. The Canal is 45 feet wide with locks 270 feet long.

1979 — The Proposed Plan for the Niagara Escarpment was released. ■



Cyprus Lake Provincial Park, south of Tobermory.

Escarpment Area Museums Rich in Historic Artifacts

Some people view the Escarpment as strictly a geological resource — a ridge of rock rich in natural resources and beauty.

But the Escarpment is more. Much more.

It's a place where important things happened to shape our provincial heritage.

The story of the Escarpment — from its geological beginnings over 400 million years ago to its time as an Indian hunting ground thousands of years before the birth of Christ to its discovery, settlement and development by Europeans — is vividly told in the artifacts, relics, tools and documents available for public study and inspection in the thirty or so museums on or near the Escarpment corridor.

Visits to these museums can add immeasurably to our knowledge, appreciation and "feel" for the Niagara Escarpment and Ontario.

To help, **Cuesta** has compiled a sampling of 32 Escarpment area museums by region. Museum hours and dates of operation are subject to change without notice.

Niagara Region

Stone Shop Museum, 271 Main Street West (Regional Road #81), Grimsby.

Constructed about 1800 by Alan Nixon, formerly an ensign in Butler's Rangers, this attractive old stone building contains displays relating to the history of the area, along with memorabilia of the War of 1812 and pre- 1640 Neutral Indian artifacts.

Open: Spring to fall from 1 to 5 p.m. Morning and evening tours by appointment with the Curator.

Ball's Falls Conservation Area, Jordan.

This museum complex is situated close to the waterfalls in the Conservation Area located on Regional Road 24 at Vineland, 3 miles south of Q.E.W. The museum complex includes a 165-year-old grist-mill, two pioneer log cabins, an apple-drying shed, lime kiln, blacksmith shop, an 1864 board and batten church, and other evidence of early industrial activities of the pioneer Niagara community.

History buildings open during summer months: Week-days 10 a.m. to 4 p.m., weekends 10 a.m. to 6 p.m.

Jordan Historical Museum of The Twenty, Main Street, Jordan.

Located 3 miles off the Q.E.W. in the Village of Jordan, this museum comprises three buildings: the Vintage House, a Stone School and the Jacob Fry House (1815). The exhibits include pioneer farm implements, weapons, kitchenware and furniture. Of special significance is the rare giant fruit-press which stands adjacent to the Vintage House.

Open: Mid-May to last Sunday in October, daily 12 noon - 6 p.m.

Lundy's Lane Historical Museum, 5810 Ferry Street, Niagara Falls.

Built in 1874 as the Town Hall of Stamford Township, this Museum contains Indian and military artifacts and relics of the Battle of Lundy's Lane, also pioneer utensils, tools and textiles.

Open: Jan. to April 30 daily Mon. to Fri. 12 noon - 4 p.m.

From May 1 to Nov. 30 daily 9 a.m. - 4 p.m.

From Dec. 1 to Dec. 31 daily Mon. to Fri. 12 noon to 4 p.m.

Closed Christmas and New Year's. Group tours by appointment.

Niagara Falls Museum, 5651 River Road, Niagara Falls.

Located near the Rainbow Bridge, this large museum contains four floors of art, history and natural science displays, including the Daredevil Hall of Fame.

Open: All year. Dec. to Mar. Mon. To Fri. 9 a.m. - 6 p.m.

Weekends 9 a.m. to 10 p.m.; April and May daily 9 a.m. to 10 p.m.;

June to Sept. daily 9 a.m. to midnight; Oct. and Nov. daily 9 a.m. to 10 p.m.

Willoughby Township Historical Museum, 9935 Niagara Parkway, Niagara Falls.

This museum is located on the Niagara Parkway at Weaver Road south of Niagara Falls in a former rural school building. The displays in this museum illustrate

(Continued on page 34)

ESCARPMENT QUIZ

How well do you think you know the Niagara Escarpment?

Test your knowledge by identifying the six prominent Escarpment area locations illustrated in the photographs on these pages.

Answers are on page 39.

1



2



3



STAFF PHOTO



4

5



6



Plaques Point Way to Escarpment Tour

Over the past few years the Niagara Escarpment Commission has undertaken a program of marking 19 sites of special interest along the Escarpment by the placement of bronze plaques.

The plaques, in effect, represent a "grand tour" of the Niagara Escarpment along its 725-kilometre route from the Niagara Gorge to Tobermory at the tip of the Bruce Peninsula. Locations of plaques are shown on the countour map enclosed with this issue of **Cuesta**.

One day, if you haven't already done so, you may wish to make such a tour. The scenery ranges from excellent to spectacular.

To assist, **Cuesta** has compiled a list of the plaques and their locations — telling the story of the Escarpment and marking its route through southern Ontario.

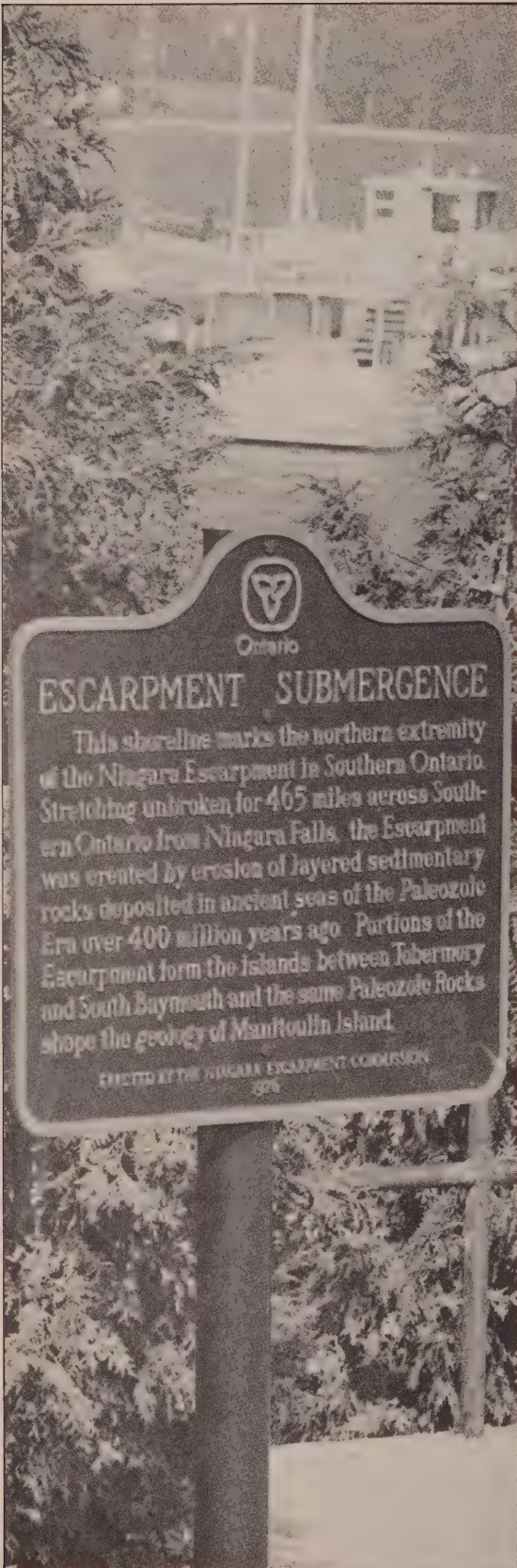
1. On Niagara Parks Commission property, near the terminal of the Spanish Aerocar on the Niagara River Parkway in Niagara Falls, a plaque marks the beginning of the Niagara Escarpment in southern Ontario. The *Niagara Gorge* contains the best exposures of strata (dolostone, limestone, sandstone and shale) which are visible continuously along the gorge from Queenston to Niagara Falls.

2. On the west bank and adjacent to Lock No. 6, a plaque marks the site of the Welland Canal. Historically, the Escarpment has been a barrier to traffic between the Great Lakes. The *Welland Canal* overcame the barrier. The Canal locks lift ships over the 100 metre difference between Lakes Erie and Ontario.

3. At the Niagara South Board of Education's St. Johns Outdoor Studies Centre (near Thorold), a plaque marks an area of rolling hills, valleys and woodland, known as the *Short Hills*. Composed of glacial drift and other materials, the Short Hills make a striking break in the generally linear Niagara Escarpment and provide a setting for many tree species of the Carolinian forest.

4. On Hamilton Region Conservation Authority property, atop the Town of Stoney Creek, the *Devil's Punch Bowl* provides an excellent exposure of Niagara Escarpment strata deposited over 400 million years ago, including Lockport, DeCew, Rochester, Irondequoit, Reynales, Thorold, Grimsby, Cabot Head and Manitoulin formations.

5. In front of the Trail Centre of Hamilton Region Conservation Authority, near Ancaster, is the plaque marking the *Dundas Valley*. The Dundas Valley was initially carved into the Escarpment by a preglacial river. So intense was the ice scouring which created the present U-shaped valley that the bedrock surface now lies in excess of 100 metres below the level of Lake Ontario.





Niagara Escarpment Commission Chairman, Ivor McMullin, and Mrs. M.D. Collins, Chairman of the Niagara South Board of Education, unveil Niagara Escarpment Commission geological plaque identifying the Short Hills at the St. Johns Outdoor Studies Centre, St. Johns West, near Fonthill.

6. On Halton Region Conservation Authority property, in the Town of Milton, *Rattlesnake Point* lies on the southern extremity of the Milton Outlier, separated from the main rock mass by Nassagaweya Canyon. During recession of the Pleistocene Ice, the canyon became a major meltwater channel giving rise to the extensive gravel being mined today.

7. Near Kelso, on Halton Region Conservation Authority property, is evidence of the large volume of meltwater which flowed through this area during the period of glacial retreat, some 12,000-14,000 years ago, forming *Hilton Falls* and the pothole worn in the bedrock by loose stones being spun around by the force of water flowing over the Escarpment at this point.

8. On Credit Valley Conservation Authority property near the Village of Limehouse in Halton Region, the *Limehouse Kilns* are the remnants of one of the earliest industries associated with the Escarpment — the production of lime for making cement and mortar. The kilns date back to between 1840 and 1870.

9. Near the Village of Cataract, Peel Region, the *Credit River Gorge* displays an excellent contact between grey sandstone of the Whirlpool Formation and red shales of the underlying and older Queenston Formation, deposited in ancient seas of the Paleozoic Era over 400 millions years ago. This shale/sandstone contact represents the boundary of two geological time periods in Ontario: the older Ordovician and younger Silurian.

10. In Glen Haffy Conservation Park, on Airport Road, near the Village of Mono Mills, is located a prime example of "buried escarpment". Massive accumulation of glacial till deposited during the Pleistocene glaciation formed ridges and extensive deposits of sand and gravel, although the underlying Escarpment strata is still evident from the elevation of the area above the lowlands to the east and south.

11. On Nottawasaga Valley Conservation Authority property, on #25 sideroad, Mono Township, is the outlier known as *Mono Rocks*, initially separated from the primary Escarpment face by preglacial erosion. Following recession of the ice mass, subsequent erosion has created several deep crevices or fissure caves along portions of the rock face.

12. In *Devil's Glen* Provincial Park on Highway 24, near Singhampton, is a steep gorge carved by the Mad River, which displays two distinct faces of the Escarpment: the upper scarp created by durable dolostone of the Amabel Formation and the lower scarp capped by a similar dolostone of the Manitoulin Formation.

13. In Grey County at the junction of County Roads 7 and 13 is the dolostone bluff known as "Old Baldy" overlooking the Beaver Valley, once a preglacial river, later scoured by glacial ice to produce the broad U-shaped valley that exists today.

14. Near the Village of Wodehouse, in Euphrasia Township, Grey County, on North Grey Region Conservation Authority lands, is a fine example of a chemical weathering process which produced the special features of *Karst topography*: sinkholes, caves and springs.

15. On Grey County Road 7, on North Grey Region Conservation Authority property, in St. Vincent Township, the *Griersville Rock* represents an example of "periglacial mass movement", where large blocks of dolostone were dislodged by freeze-thaw conditions at the glacier's edge and slid down to occupy a position in contrast to the primary rock face.

16. On Sauble Valley Conservation Authority lands in Sarawak Township, Grey County, the scenic *Indian Falls* tumble over a secondary scarp composed of resistant dolostone.

17. On Sauble Valley Conservation Authority property, on Highway 26, just east of Wiarton, the *Skinner Bluff* plaque points out an interesting series of ridges and bluffs, at the top of which is a massive dolostone bluff, flanked by a slope of fallen rock.

18. In Cyprus Lake Provincial Park, St. Edmunds Township, Bruce County, at *Halfway Rock Point* the shoreline, caves or grottoes, terraced boulder beaches and overhanging ledges and cliff crevices all attest to the continuing erosive impact of waves and ice action on the face of the Escarpment.

19. In the Village of Tobermory on the east side of the harbour, the *Escarpment submergence* is marked where the northern extremity of the Niagara Escarpment in southern Ontario dips into Lake Huron. ■

Doing It Their Way:

Students Raise Funds To Purchase Five Parks

For the past nine years, students from two Hamilton area high schools have been busy in their spare time saving the Escarpment, the Dundas Valley, Cootes Paradise Marsh, and the largest elm tree in Ontario.

This may seem like an ambitious catalogue of goals.

And, of course, it is.

But their list of accomplishments is equally impressive.

To date the students — mostly from Ancaster High and Vocational School and Parkside High School in Dundas — have collected \$55,000, attracted an additional \$160,000 in provincial grants, and, with these funds, enabled the Hamilton Region Conservation Authority to purchase five parkland parcels totalling 220 acres.

In addition, Labatt's Ltd. contributed \$10,000 to the Students' Park Fund to finance a crew of five students working two summers to maintain nearly 70 miles of the Bruce Trail.

How it Started

It all started in 1971 when teacher Alan Stacey's geography class discussion of the environmental impact of development prompted the students to see what they personally could do to preserve the natural environment of the Dundas Valley.

They joined forces with students of Parkside High School and their environmental science teacher Don Buntain.

They now had an organization.

All they needed was a project, preferably one with leverage.

That's where the Hamilton Region Conservation Authority and the provincial government's grant system for purchasing parkland came in.

The Authority had options to buy various parcels of land in the Valley, and the government had a grant scheme which provided that whatever monies the Authority raised the government would donate three times that amount — a matching 75 per cent grant.

But raising cash is always a problem.

The students, however, were keen.

Forty of them visited almost every home in Dundas and Ancaster to explain their project and ask for tax deductible donations.

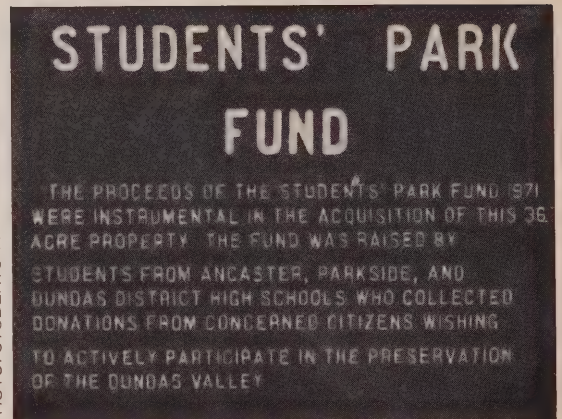


PHOTO: STUDENTS' PARK FUND

The students were endorsed by the Wentworth County School Board as well as by the Kiwanis Club — Westdale, which, throughout the years, underwrote most of the administration costs of the fund raising.

Campaigning for Funds

The students raised \$7,200 during that first campaign, Stacey recalled, resulting in the purchase of the first 36-acre student park in the west end of the Dundas Valley, off Martin's Road in Ancaster.

In 1972, ten schools from Hamilton, Ancaster, Stoney Creek and Dundas participated, raising \$11,000. With the resulting government grants, two additional park sites were purchased — one in Vine-mound, the other off Highway 99 west of Dundas. This achievement earned the Students' Park Fund the Canadian National Sportsmen's Show Conservation Award.

In their third year, the students felt that they would like to return some service to the communities which had supported them in the past and the idea of "Rent-a-Kid" was introduced. In this program, the students pledged to raise \$5 each by extra-curricular work, such as babysitting, window washing, leaf rak-

(Continued on page 29)

Outdoor Education Thrives on Escarpment

For 150,000 primary and secondary students in Ontario each year, the Niagara Escarpment provides a huge, peerless year-round living classroom — filled with forests, streams, rocks, plants and animals.

The “classroom” is operated by ten Escarpment-area boards of education, the Royal Botanical Gardens in Hamilton, as well as several conservation authorities — offering what amounts to one of the widest ranging outdoor education programs in Canada.

School boards not operating their own outdoor education centres usually have an arrangement with the local conservation authority to provide the locale for courses, staffing, etc.

Cuesta decided to locate all the outdoor education centres in and near the Escarpment to determine how they contribute to a greater understanding and knowledge of the Escarpment area natural resources. We came up with 20 and here's what we found:

Niagara South Board of Education — The St. Johns Outdoor Studies Centre, in the Short Hills area near St. Catharines, was established in response to an invitation from a local resident and with the support of the community: it operates almost entirely on private property. The Centre is open ten months of the year and offers over 100 permanent programs.

Programs are multi-disciplinary and interdisciplinary: they are directed towards a range of students from Kindergarten to Grade 13. Courses include: orienteering, a variety of self-guiding trails, art, mapping, social studies, natural science, woodland management microclimate studies and language arts.

Other programs are located in the Upper Canada Schoolhouse (circa 1804) restored by the Niagara South Board of Education.

The Niagara Peninsula Conservation Authority — Formed in 1959, today it is responsible for conserving, restoring, developing and managing 936-square-miles of natural resources. The Authority operates a total of 27 conservation areas, ranging in size from half an acre to 978 acres.

Ball's Falls Conservation Area, the major teaching area, consists of 218 acres of land where Twenty-Mile Creek plunges over the Escarpment. A program of historic interest is centred at Ball's Falls, the site of a pioneer village of the early 1800's, which features a grist mill, log cabins, a blacksmith's shop, church, the Ball Home and other evidence of several early industrial enterprises, such as a lime kiln.

Teachers also use the Ball's Falls Conservation Area

to involve their students in geology, streams and woodlots, mapping and orienteering, as well as cross-country skiing and snowshoeing.

Hamilton Region Conservation Authority — This Authority, formed in 1966, has approximately 185 square miles under its jurisdiction. Nineteen conservation areas range in area from 13 to 1,400 acres.

Approximately 31,000 students annually study outdoor education at the Dundas Valley Trail Centre, Merrick Field Centre and at the Resource Management Centre, near Ancaster. Students participate in such programs as the apple orchard management program (levels 1-13), and sugar maple bush ecology programs (levels K-13,) as well as the study of resource management topics, such as wildlife, stream, forest and soil management for grades 7 to 13.

Natural heritage subjects such as birds, animal preparation for winter, rocks and their origin, ferns and mosses, are designed for students in grades K to 6.

Hamilton Board of Education — About 20,000 students from K to grade 13 participate in the Board's outdoor education program at the Christie Outdoor Centre near Greensville (a project of the Hamilton Region Conservation Authority) and the Glen Road Centre on the grounds of the Royal Botanical Gardens.

The Glen Road Centre is geared to the junior level, providing initial outdoor awareness and introduction to science.

The Christie Centre caters to grades 6 to 13, covering science, geography, art life science and physical education. Both centres are open during the school year. In addition, the Christie Centre is used by the Hamilton Region Conservation Authority during the summer months for a nature interpretation project for youth groups: Y.M.C.A., church schools, municipal recreation, Big Brother camps, etc.

Hamilton-Wentworth Roman Catholic Separate School Board — This school board operates the Camp Marydale outdoor education centre at Freelon during the school year.

The program is based primarily on one-day visits to the centre, but week-long camping experiences are also part of the program.

An extensive program of studies ranging through natural sciences, and pollution studies, to orienteering are available to the approximately 7,000 students per year who use the facilities of the outdoor centre.

Wentworth County Board of Education — Approximately 1,300 grade 6 students attend Canterbury Hills Centre near Ancaster for a full day of instruction during the mid-April to mid-June period.

The program involves a half-day on stream studies and a half-day in woods and mapping studies. Some orienteering is also taught.

Royal Botanical Gardens, Hamilton — The nature interpretation centre is located at the Arboretum of the Royal Botanical Gardens. About 4,000 students per year participate in the half-day education programs which are offered three days a week.

While this impressive education centre is in the area of the Parkway Belt West Plan, the central location, the excellent education programs, and the popularity of the gardens with students make it impossible to omit in any article on Escarpment area outdoor education centres.

The fall program offers classes in tree identification, seed identification, the science of Fall, and natural communities. The winter studies concentrate on animal tracking, conifers, winter weeds, as well as bird identification and the making of bird feeders. Spring starts with the maple syrup program and then moves into the study of wildflowers.

For young children, there is a special sensory program in which students see and hold small animals (rabbits, turtles, guinea pigs, etc.) which are kept at the interpretative centre.

Halton Board of Education — Approximately 7,000 students annually receive their outdoor education at centres run by the Hamilton Region and Halton Region Conservation Authorities and the Royal Botanical Gardens.

The Board of Education has developed a core program used by teachers in conjunction with the programs and facilities of the Botanical Gardens and conservation authorities. The Mountsberg Wildlife Centre is the primary site of outdoor programs, with some outings to Hilton Falls and Crawford Lake.

Halton Region Conservation Authority — This authority's outdoor education program is centred at the Mountsberg Wildlife Centre near Milton.

Half and full-day programs are conducted for students from K to grade 12 (January through June). Winter interpretation programs centre around bird life, snowshoeing and survival techniques; spring leads into sugar bush management, the maple syrup process and on to the study of birds, animals and pond life. Approximately 17,000 students participate in the Mountsberg Centre programs each year.

Credit Valley Conservation Authority — The location of the outdoor teaching centre at Terra Cotta allows easy year-round access from all schools in Halton and Peel Regions, Dufferin County and Erin Township.

This 450-acre conservation area near the Credit River on the Escarpment provides an ideal nature setting for some 4,000 students who attend each year. The programs are designed primarily for elementary

grades K to 8. Activities centre around ecology walks, Bruce Trail hikes and pond studies.

Special arrangements may be made to tour appropriate locations in the watershed to study various aspects of the authority's resource management programs — water, forest, wildlife and land management. About 1,500 students per season participate in the program of maple syrup history and production methods at the Orangeville Reservoir Conservation Area.

Peel Board of Education — This large regional board of education provides outdoor educational experiences for approximately 24,000 students at the Jack Smythe Field Centre at Terra Cotta and the Finlayson Centre at Alton. These centres are open during the school year for elementary and secondary level students making full-day visits to the school.

In July, week-long camps are held at the centres. Programs are arranged through co-operation of the regular classroom teachers and the study centre teachers. The courses cover animal ecology, aquatic ecology, trees, mapping, orienteering, survival camping, cross-country skiing, snowshoeing, historical aspects of the area, and maple sugar operations. The Niagara Escarpment is studied in terms of its geology, glaciation, etc.

Dufferin County Board of Education — Outdoor education for students of Dufferin County is part of the regular program of each school, although no outdoor centre has been established. Provincial parks and conservation areas in the region are frequently used as the locale for outdoor studies.

Boyne River Natural Science Centre — This centre was established in 1973 by the City of Toronto Board of Education on a 318-acre property near Shelburne, close to the Boyne Valley Provincial Park.

In addition, 35 local farmers graciously permit the use of their land for demonstration purposes.

This centre is believed to be the largest of its kind in Canada, having a full-time staff of one director and ten teacher-naturalists and ten student teachers, as well as eight "home room" teachers accompanying the 140 resident students.

The school operates 11 months of the year, providing week-long courses for over 6,000 students. Classes are from 9 a.m. to 9 p.m., with the days spent on field work and evenings on an informal classroom basis evaluating the day's events.

Approximately 150 course options are available in programs related to natural science, geography, history, archaeology, physical education, art, language arts, and mathematics.

Nottawasaga Valley Conservation Authority — This authority does not have a permanent study centre. It conducts interpretative programs on requests for schools, 4-H clubs, field naturalists, etc.

Frequently the staff nature interpreter will visit school classrooms to speak on conservation, flood and erosion control, and the role of the authority in these matters.



The unique geological formations of the Escarpment offer unparalleled outdoor educational opportunities.

Grey County Board of Education — Grey County uses a one-room school at Lindenwood in Keppel Township as a base for outdoor studies.

Each school in the county schedules its own programs, using adjacent provincial parks and/or conservation areas as study centres, such as the Bognor Marsh and Saugeen Valley Conservation Authority headquarters near Hanover.

North Grey Region and Sauble Valley Conservation Authority — This dual authority provides outdoor education on request at its headquarters building just outside of Owen Sound.

Requests mainly come from schools and youth organizations. Programs include workshops on wildflowers, shore birds, rare ferns and snowshoeing.

Bruce County Board of Education — An Outdoor Education Centre near Wiarton serves the 31 elementary and seven secondary schools of Bruce County.

Outside groups use the facility by special arrangement.

Each year, approximately 3,000 students attend the Centre, most groups remaining for three days. A full-time staff of three plus some 100 visiting teachers and volunteer parents are involved in the program.

The Centre provides a general range of programs based on conservation and ecology; recreation and physical education; local history and pioneer life experiences; as well as arts programs such as sketching, photography, drama and poetry. ■

Commission Chairman Ivor McMullin said, while no specific land use designation was created to cover agricultural lands in the Proposed Plan, the Commission has recognized agriculture in all its major designations as a compatible existing use generally contributing to the objectives of The Niagara Escarpment Planning and Development Act.

"The publication of The Ontario Food Land Guidelines by the Ontario Ministry of Agriculture and Food," the Commission stated, "now provides a framework for municipal planning policies in the identification and maintenance of prime agricultural land throughout the Province."

Proposed Parks System

The Commission's Proposed Plan also recommends the creation of a 95,844 acre park system to consist of 67,174 acres currently in public ownership in addition to 28,670 acres which the Commission recommends should be purchased by the province as landowners indicate a willingness to sell.

The proposed Niagara Escarpment Parks would form a sub-system within the overall Provincial Parks system. Its operation is to be co-ordinated by the Ministry of Natural Resources with some of the parks operated by the appropriate conservation authority.

The Commission recommends that the province allocate funds over a five year period to complete the acquisition of the parklands and that Wintario be used in part to assist in the funding of the program.

The Commission also recommends that the acquisition program include additions to the Bruce Trail as landowners indicate a willingness to negotiate trail easements or to sell strips of land for the Trail.

In the Parks System, the Commission suggests, the Bruce Trail should link parks and natural features on the Escarpment.

The parks in the proposed system would be divided into three classifications:

- **Nature Reserve Parks** to be preserved in as close to a wilderness state as possible;
- **Natural Environment Recreation Parks** for moderate intensity recreation including camping, trails, hiking, scientific and educational uses; and
- **Intensive Recreation Parks** offering a full range of recreation activities from camping to downhill skiing.

Additional Recommendations

Among other major recommendations contained in the Plan, the Commission is proposing:

- provisions for government purchase of existing vacant lots upon request of owners who might be denied permission to develop lots, particularly those in sensitive Natural Areas, which otherwise would meet municipal and health standards;
- adoption of the development control system as the "preferred method" of implementing land use policies, with municipalities having the option of using either development control or zoning in Urban Centres, Minor Urban Centres and Escarpment Recreation areas;

- stabilization of the Bruce Trail by the government negotiating with willing landowners to purchase strips of land "such as on the borders of properties" or by trail easements;
- and assigning priority to the Escarpment for funds that may become available for the rehabilitation of abandoned pits and quarries.

The Commission further recommended a series of amendments to The Niagara Escarpment Planning and Development Act which would:

- add cities within regional municipalities to the list of bodies — regions, counties, cities and the Commission — which may be delegated to issue development permits in the Escarpment area;
- appoint the Ontario Municipal Board to deal with appeals on development permits;
- and allow appeals by anyone requesting notification of a development decision.

Copies of the Proposed Plan are available from:

The Niagara Escarpment Commission,
232 Guelph Street,
Georgetown, Ontario, L7G 4B1
Telephone (416) 877-5191

Serving the County of Dufferin and Regional Municipalities of Halton and Peel.

The Niagara Escarpment Commission,
166 Main Street West,
Grimsby, Ontario, L3M 1S3
Telephone (416) 945-9235

Serving the Regional Municipalities of Hamilton-Wentworth and Niagara.

The Niagara Escarpment Commission,
11-13 Marsh Street, P.O. Box 9,
Clarksburg, Ontario, N0H 1J0
Telephone (519) 599-3340

Serving the Counties of Bruce, Grey and Simcoe.

RECOMMENDED READING

Looking for more information on the Niagara Escarpment?

Three publications on the subject are: "Land in Demand; The Niagara Escarpment" by Ian Reid, published by the Book Society of Canada Limited, Agincourt — a student text examining the geological formation of the Escarpment and its various land uses and land-use conflicts; "The Niagara Escarpment" by William H. Gillard and Thomas R. Tooke, University of Toronto Press — providing general readers and students with an informal tour of the Escarpment from Niagara Falls to Tobermory; and "The Niagara Escarpment" by W.M. Tovell, ROM Series, University of Toronto Press — a 17-page booklet describing the Escarpment and its rock and origin.

Home On The Range With Bobby & Family

We were wrong!

We thought the Escarpment was providing a habitat for 53 species of mammals. Let's make that 54. We completely overlooked "Bashful Bobby" and his growing family.

"Bobby" is a bison, all 1,600 pounds of him, who lives on a 70-acre pasture at the base of the Niagara Escarpment at the Rattlesnake Point Conservation Area.

Bobby's debut in Southern Ontario came in October, 1965, when he was imported with four cows from Wood Buffalo National Park, Alberta.

Realizing that the fate of the bison herds of Rattlesnake Point rested on his brawny shoulders, "Bashful Bobby" threw his considerable might into the challenge. Calves were born to each of the cows the following Spring and "Bashful Bobby" became known as just plain "Bobby".

So successful was the original experiment that in 1974, the herd was split and several bison were shipped to Mountsberg Wildlife Centre and placed under the care of Superintendent Martin Wernaart.

Now 18 of these nearly one ton animals roam Rattlesnake Point and half of that number reside at the Mountsberg 12-acre compound.

Several bison, mostly offspring of "Bashful Bobby", have been sold or donated by the Halton Region Conservation Authority to other parks across Canada.

Although the bison is still on the endangered species list, these magnificent creatures will survive as a unique part of our country's heritage with continued careful management and a little help from bulls like Bobby.



Bobby

(Continued from page 24)

ing, etc. The \$9,000 raised in this manner, with its matching grant, bought the Cramer Road-Highway 99 property west of Dundas. Also in 1973, the national White Owl Award brought \$5,000 into the fund.

As a change of pace, in the fourth year, working with the Ontario Waterfowl Research Foundation, the students built and placed wood duck nesting boxes and participated in reforestation projects. They also made a presentation to the Environmental Hearing Board in which they urged upgrading of the new Dundas sewage treatment plant to protect the Cootes Paradise Marsh.

In 1976, another door-to-door canvass raised \$7,600 for another parcel purchase in the west end of the Valley.

In the spring of 1979, the students conducted still another campaign, raising a further \$5,200 which will be applied to the purchase of a 55-acre parcel for the

Hamilton Region Conservation Authority.

And, simultaneously, Don Buntain's Parkside students raised \$1,600 which will be used to maintain an ancient elm tree in downtown Dundas.

The students launched their "Save the Elm" campaign when there was concern that the elm — which is on the Ontario Honour Role of Trees — was going to be cut down to accommodate new building lots.

"We've never really had more than 40 or so students participating in the projects at one time," Stacey said.

"But I think those who did participate proved to themselves they could fight city hall when necessary in a positive way and that even a small group can make meaningful contributions to the community."

Many of the students, Stacey said, currently active with the Fund are the younger brothers and sisters of students who participated in the fund raising activity of the early 1970's.

(Continued from page 15)

Approximately one-third of the Mono Cliffs Conservation Area consists of a dense bush of mixed hardwoods and coniferous trees that run the length of the exposed Escarpment face. This particular stretch of the Escarpment contains several caves and presents some excellent vistas facing east. The Mono Rocks Outliers are a geologic feature with the vertical dolomite cliffs and their related swamp forests.

33. Nottawasaga Bluffs Conservation Area

This 37-hectare (90-acre) property is located south of the Devil's Glen Ski Resort near Singhampton. The area was purchased through provincial grants (75 per cent) and the Nature Conservancy of Canada (25 per cent).

The Nottawasaga Bluffs Conservation Area offers overnight camping for hikers using the Bruce Trail. It also offers an educational experience in wildlife habitat, woodlot management and geological formations.

34. Petun Conservation Area

Formerly known as the Osler Bluffs Conservation Area, this 40-hectare (100-acre) parcel of land was purchased in 1974 through provincial grants (75 per cent) and the Bruce Trail Association (25 per cent).

It is also an important source of the Black Ash Creek which flows from the Escarpment into Georgian Bay through the Town of Collingwood. The property is used mainly for hiking and cross-country skiing.

North Grey Region Conservation Authority and Sauble Valley Conservation Authority

The two Authorities cover all or parts of 26 municipalities or approximately 1,215 square miles. Some 35,000 acres of land have been acquired by the two Authorities for the purpose of resource management in their respective watersheds.

A large percentage of these lands, on or adjacent to the Niagara Escarpment, offer unparalleled scenic vistas of singular and beautiful areas of this region of Ontario.

Areas of particular scenic beauty include Jones Falls, West Rocks, Inglis Falls, Kemble Mountain, Skinner Bluff, Rocklyn Creek, Old Baldy, Wodehouse Sinkholes and Eugenia Falls.

The following brief descriptions are only some of the significant natural areas within the holdings of the North Grey Region Conservation Authority and the Sauble Valley Conservation Authority.

35. Eugenia Falls

Eugenia Falls Conservation Area consists of 23 hectares (57 acres) of parkland in the Village of Eugenia, which includes the Beaver River and the Niagara Escarpment. The Beaver River crosses over the Escarpment and drops a spectacular 100 feet to the gorge below.

The area offers such facilities as cross-country skiing, hiking trails, picnicking and viewing of the natural beauty of the Falls — a natural for photographers.

Of particular interest to canoe enthusiasts is the Beaver River Canoe Route.

Following the Beaver River for a distance of 40 kilometres from Georgian Bay to Flesherton, the route begins near Kimberley, with access from Grey County Road #7. Several views of the Niagara Escarpment and the surrounding countryside are provided before the river enters a large wooded area.

36. Wodehouse Sinkholes and Wodehouse Creek Karst Natural Areas

North Grey Region Conservation Authority owns 30 hectares (75 acres) south-west of Kimberley near the hamlet of Wodehouse in this significant geologic area which includes several karst sinkholes and a disappearing creek.

37. Kimberley Rocks (Old Baldy)

This 40-hectare (100-acre) scenic property in the Beaver Valley is mainly used for hiking, trail activities and nature interpretation.

38. Wodehouse Creek Conservation Area

This 101-hectare (250-acre) park, north-west of Kimberley in the Beaver Valley, is used for hiking and nature interpretation.

39. Robson Lakes Natural Area

There are 40 hectares (100 acres) of the Robson Lakes Conservation Area's 125 hectares (310 acres) within the area of the Proposed Plan. It is owned by the North Grey Region Conservation Authority and contains a nature area.

40. Epping Lookout

This is a small roadside picnic area, owned by the North Grey Region Conservation Authority, five hectares (12 acres) in size which contains a viewpoint overlooking the Beaver Valley.

41. Alderdice Property

The Ministry of Natural Resources owns this 22-hectare (55-acre) property which is used for hiking.

42. Griersville (Formerly Blantyre)

This area which is used for hiking is 170 hectares (420 acres) and is owned by the North Grey Region Conservation Authority.

43. Rocklyn Creek

This 200-hectare (500-acre) park located east of Walters Falls is mainly used for fishing, hiking and cross-country skiing.

44. Walters Falls

This 69-hectare (170-acre) park located near the Village of Walters Falls is mainly used for fishing, hiking and cross-country skiing.

45. Spey River Forest East

A significant nature area is the main feature of this 110-hectare (275-acre) property. This forested property owned by the North Grey Region Conservation Authority is a significant headwater area for the Big-head River.

46. Bognor Marsh

Bognor Marsh, a major source area for the Big-head River, is located in central Sydenham Township near Woodford. Extensive wildlife management is practised, combined with an attempt to establish a waterfowl sanctuary. Fishing, hunting, cross-country skiing and nature interpretation are the main activities.



Indian River Falls near Owen Sound. A half-mile hike over rugged terrain leads to the Falls.

47. **East Rocks**

East Rocks is a small 1.2-hectare (3-acre) picnic area. The North Grey Region Conservation Authority owns the property which includes a lookout tower built as a Centennial project and sponsored by Owen Sound high schools.

48. **Inglis Falls**

Inglis Falls Conservation Area is located two miles south of Owen Sound, where the Sydenham River flows over the Escarpment creating scenic Inglis Falls.

Inglis Falls Conservation Area is the site of one of the earliest mill complexes in this area of Ontario. The original grist mill was built by Peter Inglis in 1845 and the original foundation is still in evidence below the Falls.

The area is used for swimming, picnicking, hiking

and sight-seeing. The Bruce Trail passes along the top of the Falls. During the winter season, a ski hill is operated in the Harrison Park extension.

49. **West Rocks**

This heavily wooded Escarpment area is within the City of Owen Sound. It is an area of splendid scenery and is used mainly for hiking and cross-country skiing.

50. **Jones Falls — Pottawatomi**

This 120-hectare (300-acre) Natural Environment property, west of Owen Sound, includes the prominent Escarpment face, the scenic Pottawatomi River and Jones Falls. The area is used for picnicking, fishing, hiking and cross-country skiing.

51. **Brookholm**

This 10-hectare (25-acre) parcel is owned by the North Grey Region Conservation Authority. It includes the Escarpment face and a scenic lookout. It is used for hiking and cross-country skiing.

52. **Indian Falls**

This area consists of 12 hectares (31 acres) of parkland which includes Indian Creek and Indian Falls, adjacent to the Village of Balmy Beach and four miles north of Owen Sound. This 40-foot horseshoe shaped waterfall was formed by the erosion of soft Queenston dolomite in a manner similar to Niagara Falls.

Since over 80 per cent of the area has a mixture of upland and river valley forest, it provides suitable habitat for a variety of wildlife. A walk on the hiking trail leading half a mile over rugged topography terminates at the Falls.

Approaching the Falls one can experience the undisturbed natural beauty of the area. Recreational facilities include two tennis courts, a baseball diamond, a picnicking area and an adventure playground.

53. **The Glen**

These Escarpment lands include the Mud Creek headwaters as well as wetlands above the Escarpment, and a geologic site. This 700-hectare (1,740-acre) property is used for hiking, cross-country skiing, snowmobiling and wildlife management.

54. **Indian Creek**

Indian Creek flows through this 22-hectare (55-acre) property owned by the Sauble Valley Conservation Authority. The parcel is a mixture of swamp, forest and cleared land.

55. **Colpoy Range**

This small 9-hectare (23-acre) shoreline park, approximately eight miles east of Wiarton, overlooks Colpoy's Bay. The property is used for picnicking, swimming, boating and fishing.

56. **Bruce's Caves**

Located on Georgian Bay adjacent to Wiarton, this 17-hectare (41-acre) property is used for hiking, cross-country skiing and picnicking. Prominent Escarpment cliffs and wave-cut caves are the most significant geologic features.

57. **Spirit Rock**

This is a heavily wooded area consisting of 90 hectares (220 acres) located north of Wiarton. The property is used for hiking and cross-country skiing.

Other outstanding nature and geologic areas are Skinner Bluff, Slough of Despond, Kemble Mount, Gowan Lake, Lindenwood and Keppel Forest. ■

(Continued from page 7)

Ski Centres

Niagara Region

FONTHILL

Fonthill Ski Centre

2 km (1 mile) N on Lookout Point Road
Highway Access #20
Tel: (416) 934-2682
Vertical Drop 40 m (125')
Maximum Length 240 m (800')
Lifts: 1 poma, 3 rope tows
Open: Days — Wknd
Nights — Wed. & Thurs.
Pro, Rentals, Snack Bar, Ski Patrol.

Hamilton-Wentworth Region

HAMILTON

Chedoke Winter Sports Park

2 km (1 mile) E on Aberdeen Ave.
Highway Access #403
Tel: (416) 528-1613
Vertical Drop 100 m (340')
Maximum Length 540 m (1800')
Lifts: 1 doublechair, 3 T Bars, 1 Rope Tow
Open: Days — Daily
Nights — Mon. to Fri.
Snowmaking, Pro, Rentals, Snack Bar, Ski Patrol.

King's Forest Winter Park

on Cochrane Road
Highway Access #8
Tel: (416) 574-9042
Vertical Drop 75 m (240')
Maximum Length 540 m (1800')
Lifts: 2 Doublechairs, 1 Rope Tow
Open: Days — Wed., Fri.-Mon.
Nights — Mon., Wed., Fri.
Snowmaking, Pro, Rentals, Dining Room, Liquor, Ski Patrol.

Halton Region

MILTON

Glen Eden Ski Area

10 km (6 miles) S.W. of Milton
Highway Access #401
Tel: (416) 878-5333
Vertical Drop 75 m (250')
Maximum Length 610 m (2000')
Lifts: 1 Triplechair, 3 T Bars, 3 Rope Tows, 1 Chair
Open: Days — Tues. to Sun.
Nights — Tues. to Fri.
Snowmaking, Pro, Rentals, Snack Bars, Ski Patrol.

Peel Region

CALEDON

Caledon Ski Club

6 km (4 miles) W on Cty Road 11
Highway Access #10
Tel: (519) 927-5221
Vertical Drop 80 m (260')
Maximum Length 420 m (1400')
Lifts: 4 T Bars, 3 Rope Tows
Open: Days — Wed., Wknd.
Snowmaking, Pro, Rentals, Snack Bar, Ski Patrol.

Dufferin County

ORANGEVILLE

Cedar Highlands Ski Club

10 km (6 miles) E. on Hockley Valley Road
Highway Access #10
Tel: (519) 941-1262
Vertical Drop 90m (300')
Maximum Length 750 m (2500')
Lifts: 1 T-Bar, 1 Rope Tow
Open: Days — Wknd
Pro, Snack Bar, Ski Patrol.

Hockley Hills Resort

5 km (3 miles) E on Hockley Valley Road
Highway Access #10
Tel: (519) 941-4000
Vertical Drop 120 m (400')
Maximum Length 360 m (1200')
Lifts: 2 T-Bars, 1 Rope Tow
Open: Days — Daily
Nights — Tues. to Sun.
Grass skiing in the Fall on weekends.
Snowmaking, Pro, Rentals, X-ctry Trails, Heated Outdoor Pool, Dining Room, Liquor, Entertainment, Accommodation, Ski Patrol.

Valley Schuss Ski Resort

8 km (5 miles) E on Hockley Valley Road
Highway Access #10
Tel: (519) 941-8751
Vertical Drop 105m (350')
Maximum Length 900 m (3000')
Lifts: 2 T-Bars, 1 Chair
Open: Days — Fri. to Sun.
Snowmaking, Pro, Snack Bar, Ski Patrol.

Grey County

KIMBERLEY

Beaver Valley Ski Club

3 km (2 miles) S on Cty Road 13
Highway Access #10
Tel: (416) 233-5710
Vertical Drop 150m (500')
Maximum Length 1275 m (4250')
Lifts: 2 Doublechairs, 2 T-Bars, 2 J-Bars, 1 Rope Tow
Open: Days — Wed. Wknd
Nights — Sat.
Snowmaking, Pro, Rentals, Snack Bar, Ski Patrol.

Old Smokey Ski Resort

3 km (2 miles) N on Cty Road 13
Highway Access #10
Tel: (519) 599-5433
Vertical Drop 180 m (600')
Maximum Length 1200 m (4000')
Lifts: 2 T-Bars, 1 Poma, 2 Rope Tows
Open: Days — Wknds
Pro, Rentals, Snack Bar, Ski Patrol.

Talisman Resort

2 km (1 mile) N on Beaver Valley Road
Highway Access #10
Tel: (519) 599-2520
Vertical Drop 180m (600')

A familiar sight from Highway 401 — The Milton Heights section of the Escarpment: Visible on the right is the Glen Eden Ski Area in the Kelso Conservation Area, Halton Region Conservation Authority.



Maximum Length 1200 m (4000')
Lifts: 3 Doublechairs, 1 T-Bar, 1 Rope Tow
Open: Days — Daily
Nights — Sat.

Snowmaking, Pro, Rentals, X-ctry Trails, Heated Outdoor Pool, Accommodation, Dining Room, Liquor, Entertainment, Package Plans, Ski Patrol.

COLLINGWOOD **Blue Mountain**

10 km (6 miles) W on Blue Mountain Park Road
Highway Access #26
Tel: (705) 445-0231
Vertical Drop 210 m (700')
Maximum Length 1680 m (5600')
Lifts: 3 Triplechairs, 5 Doublechairs, 1 T-Bar, 6 Pomas, 2 Rope Tows
Open: Days — Daily
Snowmaking, Pro, Rentals, X-ctry Trails, Dining Room, Liquor, Entertainment, Package Plan, Ski Patrol.

Georgian Peaks Resort

14 km (9 miles) W on Highway 26
Highway Access #26
Tel: (519) 599-2620
Vertical Drop 245 m (820')
Maximum Length 2375 m (7920')
Lifts: 1 Triplechair, 3 Doublechairs, 1 T-Bar, 2 Rope Tows
Open: Days — Daily
Snowmaking, Pro Rentals, X-ctry Trails, Dining Room, Liquor, Entertainment, Package Plans, Ski Patrol.

OWEN SOUND **Harrison Park**

On 2nd Ave. E.
Highway Access #6
Tel: (519) 376-0256
Vertical Drop 25 m (80')
Maximum Length 750 m (2500')
Lifts: 1 Rope Tow
Open: Days — Daily
Nights — Nightly
Snack Bar.

Cross-Country Skiing

More than 50 cross-country trails are located on or near the Niagara Escarpment — many of them in conservation areas and on sections of the Bruce Trail.

Some of the more popular cross-country trail sites are: Cyprus Lake Provincial Park, Keppel Escarpment Conservation Area, Sucker Creek Conservation Area, Walters Falls Conservation Area, West Rocks Conservation Area, Kelso Conservation Area, Rattlesnake Point Conservation Area, Christie Conservation Area, Dundas Valley Conservation Area, Eugenia Falls Conservation Area, the Dufferin Forest, Orangeville Conservation Area, and the Terra Cotta Conservation Area.

The Bruce Trail Association has compiled a list of 55 cross-country trails — divided into three areas from Tobermory to Blantyre, from Blantyre to Kelso and from Kelso to Queenston.

The lists are available free by writing the Bruce Trail Association, P.O. Box 857, Hamilton, Ontario, L8N 3N9.

Another information source is the Ontario Government ski areas index for cross-country and alpine skiing available from Ontario Travel, Queen's Park, Toronto, Ontario; M7A 2E5. Or calling collect, weekdays 8 a.m. to 5 p.m. (416) 965-4008. The ski index lists more than 100 alpine ski sites and some 250 cross-country locations in the province. ■

(Continued from page 19)

the life and times of the early settlers in the area.

Open: Mid-May to Thanksgiving, weekends noon to 5 p.m. From July 1 to Labour Day, daily noon to 5 p.m.

**Fort George,
Niagara-on-the-Lake.**

A reconstructed late eighteenth century British military post, it is located on the Niagara Parkway near the mouth of the Niagara River. The original complex was the principal British military establishment on this frontier and saw much action during the War of 1812.

Open all year: From Mid-May to Labour Day daily 9 a.m. to 6 p.m.

From Labour Day to Oct. 31, daily, 10 a.m. to 5 p.m.

From Nov. 1 to mid-May by appointment only, weekdays 9 a.m. to 4:30 p.m. Closed statutory holidays from October to April.

**Niagara Fire Museum,
King Street,
Niagara-on-the-Lake.**

Located in the new museum building next door to the old Fire Hall on King Street, this museum contains outstanding examples of fire-fighting equipment used in the area, some of it 140 years old. Of special interest is the "mankiller", a pump built in 1834 which was powered by 12 men. Also on view are fire department record books, unusual hand fire extinguishers, and fire brigade plaques.

Open daily, June to September.

**Niagara Historical Museum,
43 Castlereagh Street,
Niagara-on-the-Lake.**

This museum — Ontario's oldest — houses a unique collection of items dating from the time of the United Empire Loyalist settlement in this area and the War of 1812 to the late Victorian period.

Open daily from May to Thanksgiving, 10 a.m. to 6 p.m.

During the rest of the year, weekends, Wednesdays and holidays only 1 to 5 p.m.

**McFarland House,
Niagara Parkway,
Niagara-on-the-Lake.**

This fine old brick house, built in 1800, is furnished in the style of 1800-1845.

Open from July to Labour Day, Saturday through Wednesday 11 a.m. to 6 p.m. Closed Thursdays and Fridays. From mid-May through June and during September, weekends and holidays only, 11 a.m. to 6 p.m.

**The Niagara Apothecary,
5 Queen Street, at King,
Niagara-on-the-Lake.**

At the Sign of the Golden Mortar, one can see an authentic restoration of a pharmacy that opened in 1866. The site which has survived with few changes still has its walnut and butternut fixtures, its original glass and ceramic apothecary ware and faithful replicas of its crystal gasoliers. The Niagara Apothecary is owned by the Ontario Heritage Foundation and is operated by the Ontario College of Pharmacists.

Open daily from early May to early September, from noon to 6 p.m.

**Mountain Mills Museum,
DeCew Road,
St. Catharines.**

This fine old mill situated at DeCew Falls is water powered, and contains rollers and millstones for grinding flour and feed.

Open: Mid-May to Labour Day, Tues. To Fri., 1 p.m. to 5 p.m.;

Weekends, 12 noon to 5 p.m.; closed Mon. except when public holiday, then closed Tues. From Labour Day to Thanksgiving, weekends only, 12 noon - 5 p.m.

**St. Catharines Historical Museum,
343 Merritt Street,
St. Catharines.**

This museum is housed in a former public building erected in 1879 of locally-quarried red sandstone. Displays depict the pioneer, military, agricultural and commercial history of the community. Two galleries have been devoted to interpreting the Welland Canal, its socio-economic influences on the area and the development of the four Welland Canals. Facilities include a local interest library and reading room, microfilm reader and audio visual presentations.

Open daily 1 to 5 p.m. Closed Christmas Day, New Year's Day and Good Friday.

**Welland Historical Museum,
656 South Pelham Street,
Welland.**

Located in the Solomon Moore House (c. 1880), this museum contains artifacts and photographs describing the founding and early life of the City of Welland and its position as a trade and transportation centre along the Welland Canal.

Open: Victoria Day weekend to Thanksgiving, daily except Mondays, 1 to 5 p.m. Group tours by appointment.

Hamilton-Wentworth Region

**Dundurn Castle,
Dundurn Park,
Hamilton.**

This 19th century mansion was built between 1832-35 by Sir Allan Napier MacNab, who became Prime Minister of the United Provinces of Canada from 1854-56. More than 34 rooms have been restored to their former palatial splendour and culinary demonstrations take place in the restored 19th century kitchen. The castle is located in Dundurn Park on York Boulevard and is accessible from Highway 403 via the York Blvd. turn-off.

Open from mid-June to Labour Day, daily 10 a.m. to 5 p.m. During the rest of the year daily 1-4 p.m. Closed Christmas Day and New Year's Day. The garden and courtyard as well as the adjacent Cockpit Theatre are often the scene of concerts, festivals, and children's theatre during the summer months.

**Hamilton Military Museum,
Battery Lodge,
Dundurn Park,
Hamilton.**

This museum is located in Battery Lodge, built 1835-40 as a gate-keeper's house for Dundurn Castle.



Ruskview, Mulmur Township, Dufferin County.

The museum is designed to show the participation of the citizens of Hamilton in the War of 1812, the Fenian Raid 1866, and in South Africa. As well as artifacts and memorabilia, there are photographs of military activities in the city at various periods also a collection of full-dress uniforms from Militia units pre-First World War.

Open daily mid-June to Labour Day, 10 a.m. to 5 p.m. During the rest of the year, daily 1 to 4 p.m. Closed Christmas and New Year's Day.

**Mohawk Trail School Museum,
360 Mohawk Road West,
Hamilton.**

This museum may be reached from Highway 6 (Upper James Street) or east from Highway 403 or 2, all of which intersect with Mohawk Road. The building was used as a school from 1882 to 1965 at which time it was restored to a late 19th century classroom atmosphere. There are displays of pioneer and historical artifacts, and during winter months it is used as a teaching aid for school classes to experience 19th century classroom conditions.

Open: July to Labour Day, daily 1:30 p.m. to 4:30 p.m. Other times by appointment.

**Whitehern (McQuesten House),
41 Jackson Street West,
Hamilton.**

Built in the 1840's of locally quarried limestone, this early Victorian mansion was bought in 1852 by Calvin McQuesten, M.D., whose descendants lived in the house until 1968. Its interior decoration reveals a variety of styles popular between 1860 and 1930. Furnishings include family possessions from the 18th, 19th and 20th centuries.

Open daily from mid-June to Labour Day, 11 a.m. to 4 p.m.

Other periods from 1 p.m. to 4 p.m., closed Christmas and New Year's.

**Battlefield House,
Stoney Creek.**

This collection of historical artifacts relating to the history of the area is housed in the former Gage homestead, situated at the Stoney Creek Battlefield. The house has been restored to the period 1800-1840 and is refurnished in the style of a well-to-do farmer of that time.

Open daily from July to Labour Day, 1 to 5 p.m. From mid-May to the end of June and in September, weekends only, 1 to 5 p.m.

Halton Region

Spruce Lane Farm, Bronte Creek Provincial Park.

An 1890's farmhouse, restored and refurnished to the period, together with a working farm of the same period.

Open: Daily during the summer, from 10 a.m. to 4 p.m.; Mondays noon to 4 p.m. During the rest of the year, daily 10 a.m. to 4 p.m., Monday, noon to 4 p.m.

Joseph Brant Museum, 1240 North Shore Boulevard East, Burlington.

This replica of the last home of the Mohawk Chief Joseph Brant features a display of Indian artifacts of the district from 10000 B.C. to the present day, the life story of Captain Brant including the treasured gorget and medal presented to Brant by George III, and a collection of costumes and articles of the pioneers of Southern Ontario.

Open all year, Mon. through Sat. 10 a.m. to 5 p.m., Sun. 1 to 5 p.m.

Closed Dec. 24-26; Dec. 31 and Jan.1.

Halton Regional Museum, Milton.

This museum is designed to show the progression of development in Halton from the early 1800's. Situated in Kelso Conservation Area, the museum complex includes a log cabin, blacksmith shop, carriage house, and a crafts and costume building as well as the main three-storey museum building, which was the original barn.

Open all year. Weekdays, from 9 a.m. to 4:30 p.m. From April to November, weekends and holidays, from 1 p.m. to 6 p.m. Closed Christmas, New Year's and Good Friday. Group tours by appointment.

Ontario Agricultural Museum, Milton.

Designed to illustrate the evolution of agriculture and rural living from the first days of settlement until the present time, this museum has more than 12,000 artifacts plus five display barns that house the largest collection of heavy farm machinery in Canada.

Open all year, seven days a week, 10 a.m. to 5 p.m.

Ontario Electric Railway Museum, Milton, near Rockwood.

Situated 9 miles north on Exit 38 from Highway 401. This museum depicts the history of electric railways in the 19th and 20th centuries.

Open: Weekends and holidays, end of May to end of October, 11 a.m. to 5 p.m.

Dufferin County

Dufferin County Historical Museum, Hyland Park, Shelburne.

This museum complex includes a log house furnished in the period of 1870, a large barn with displays on upper and lower floors, a well-equipped blacksmith shop and an Orange Hall complete with its records. Recent acquisitions include a railway flag station and a building that displays agricultural equipment.

Open: Mid-June to Labour Day, daily 9 a.m. to 5 p.m. (open by appointment for group tours, Sept. through June.)

Simcoe County

Collingwood Museum, St. Paul Street, Collingwood.

Housed in a former railway station just south of the Collingwood Shipyards, the museum exhibit is devoted to illustrating pioneer life, the founding of the community and its extensive ship-building activities. Museum also has a complete Court Room display, with judge's bench and bar moved to the site from the Town Hall, and an extensive collection of Indian artifacts, most of which were found on sites located on the Niagara Escarpment.

Open: Every weekend from the Victoria Day weekend until Thanksgiving, and open seven days a week from Dominion Day weekend until Labour Day.

Grey County

Beaver Valley Military Museum, Clarksburg.

(South of Highway 26 at Thornbury on the Valley Road). Housed in the former town hall on the main street in Clarksburg, this museum displays, through pictures and artifacts, the history of Grey County military units from 1869 to present day.

Open: Weekends from May to mid-November, 10:00 a.m. to 8:00 p.m. During July and August, daily 10:00 a.m. to 8:00 p.m.

South Grey Museum and Historical Library, Flesherton.

Located in Memorial Park (on Highway 10), this new museum building houses pioneer artifacts and items of local historical interest.

Open: Mid-May through June weekends 1 p.m. to 4:30 p.m. July and August daily 1 p.m. to 4:30 p.m. September to Thanksgiving weekends 1 p.m. to 4:30 p.m.

Meaford Museum, Bayfield Street, Meaford.

Displays in this museum are devoted to recalling the days of early settlement of this community.

Open: Mid-June to mid-September, daily 2 p.m. to 5 p.m. and 7 p.m. to 9 p.m.

The County of Grey and Owen Sound Museum, 975-6th Street East, Owen Sound.

A local history museum complex depicting aspects of Indian and emigrant European cultures in the area includes three display galleries, log cabin, log house, blacksmith shop, and demonstrations of period arts such as blacksmithing, spinning, etc.

Open all year. During July and August Mon. to Sat. 9 a.m. to 5 p.m. Tues. and Thurs. evenings to 8 p.m. Sundays 1 p.m. to 5 p.m. Balance of the year, daily except Mon., 1 p.m. to 5 p.m.

The Tom Thomson Art Gallery, 840 First Avenue West, Owen Sound.

This gallery has a collection of paintings, drawings and memorabilia of Tom Thomson on view at all times.

This gallery also houses a permanent collection of 19th and 20th century Canadian art, and art depicting Escarpment area subjects. Changing shows from September to June.

Open all year, daily 12 noon to 5 p.m. Wed. and Fri. evenings 7 p.m. to 9 p.m. Closed Mondays from Sept. to June.

Bruce County

The Peninsula and St. Edmunds Township Museum, Tobermory.

This museum is located in a historic school building on Highway 6 about a mile south of Tobermory and con-

tains interesting displays describing the settlement and development of the area.

Open weekends only 1 p.m. to 5 p.m. from Victoria Day to the end of June and from Labour Day to Thanksgiving. Summer hours: open daily from July 1 to Labour Day 1 p.m. to 9 p.m.

For further information on our Ontario heritage, **Cuesta** suggests the 260-page booklet "Ontario Historic Sites, Museums, Galleries and Plaques", available for \$1.00 from: Heritage Administration Branch, Ministry of Culture and Recreation, 7th Floor, 77 Bloor Street West, Toronto, Ontario, M7A 2R9 or: the Ontario Bookstore, 880 Bay Street, Toronto, Ontario, M7A 1Y7.



The pride of Pelham, believed to be Canada's oldest sugar maple dating back some 450 years, stands 82 feet and the trunk measures over 18-1/2 feet in circumference.

Located in North Pelham in the Short Hills area near St. Catharines, the tree is being preserved by the Niagara Peninsula Conservation Authority.

The maple stands on land that once belonged to a

brother-in-law of Laura Secord, known for her role in the War of 1812.

The Conservation Authority was granted a 999-year lease on the property it occupies by kin of Robert Comfort who purchased the land from James Secord in 1816.

The pride of Pelham is, of course, called the Comfort Maple.

New Agricultural Museum Opened at Milton Heights



Canada's newest and most extensive agricultural museum, within sight of the Escarpment, is fast becoming a major Ontario attraction.

The 32-hectare (80-acre) Ontario Agricultural Museum near Milton, operated by the Ministry of Agriculture and Food, officially opened its gates last May. The spacious Exhibit Hall is now open year-round. The outdoor displays are open until October.

When fully completed by 1985, the site will boast, in addition to the Exhibit Hall and reference library, display buildings containing the largest collection of farm equipment anywhere in Canada, six farmsteads reflecting various phases of agriculture from the early 1800's to the present, an outdoor demonstration ring, an artifact restoration centre, a blacksmith's shop, sawmill, shingle mill, cider mill, apple butter plant,

general store, old-time school and church, as well as a historic building devoted to the Women's Institute.

The major part of the collection of antique agricultural equipment, machines and tools was acquired by the Province of Ontario in 1965. The museum now depends on, and welcomes gifts to improve and increase its unique collection.

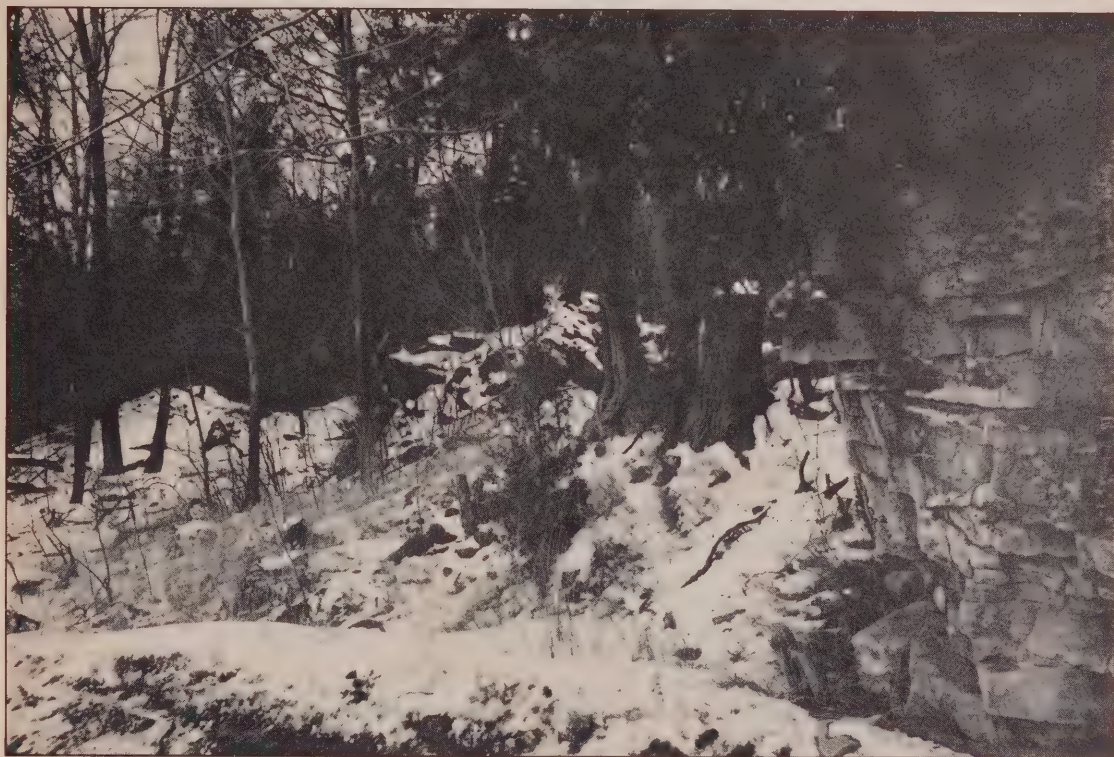
Donated items on display will carry the donor's name and pertinent historical facts identifying the artifact with rural Ontario.

This is an excellent opportunity for Escarpment area residents to make a historical donation to one of the most significant museums along the Niagara Escarpment corridor.

The museum is located 5 kilometres west of Milton — immediately south of Highway 401. ■



Escarpment Donation



A small portion of the 160-acre Yaremko-Ridley Property — located north of Kilbride in the Town of Milton — which was donated to the Ontario Heritage Foundation by John Yaremko, former provincial Solicitor General, and John Ridley, Chairman of the Quetico Foundation.

In its Proposed Plan for the Niagara Escarpment, the Commission acknowledges the important contribution of the Ontario Heritage Foundation in the preservation and maintenance of our heritage resources.

Escarpment area municipalities are encouraged to make full use of the Ontario Heritage Act to ensure that their local official plans identify and assess historical resources for conservation.

The Ontario Heritage Foundation is an agency of the Pro-

vince of Ontario under the auspices of the Ministry of Culture and Recreation.

The work of the Foundation is divided into four inter-related areas: archaeology, conservation of buildings of historical or architectural value, erection of plaques and the Trust Program.

The Foundation's Trust Program accepts donations of scenic lands as well as donations of heritage buildings and other cultural properties.

The Yaremko-Ridley Property is currently managed by the Parks Branch of the Ministry of Natural Resources.

Escarpment area residents and visitors have access to this natural property for cross-country skiing, viewing and hiking.

ESCARPMENT QUIZ ANSWERS

1. Erosion in Queenston shale near Cheltenham.
2. Cave Point, Georgian Bay shoreline, Bruce Peninsula.
3. Looking south down the Third Line into the Hockley Valley, Mono Township, Dufferin County.
4. Log cabin, Ball's Falls Conservation Area, Town of Lincoln, Niagara Region.
5. Whitby shale, on Georgian Bay shoreline, Craigleith, Collingwood Township, Grey County.
6. Escarpment rock cut at Dufferin Quarries, Town of Halton Hills, Halton Region.



PHOTO: HALTON REGION C.A.

Archaeologist carefully removes dirt particles from pottery fragment.

Neutral Village Site

Archaeologists have excavated what is possibly the last remaining Neutral Indian village of this period on the Niagara Escarpment in the Niagara Peninsula area.

The 10-acre site located near St. David's Road, in Thorold, a few yards from the old Mohawk Trail from Queenston to Hamilton, was rediscovered by a local collector, Rory Keeler of St. Catharines, who brought the site to the attention of authorities.

The Neutral village was originally discovered in the late 1880's by curio seekers who did not accurately record the location of the site, nor undertake any significant excavation. Some artifacts which were discovered at this time were subsequently donated to McMaster University.

Dr. Bill Noble, an archaeologist with McMaster University who is in charge of the current excavation, feels the Thorold discovery is very significant.

The Thorold site, occupied by the Niagara tribe of the Neutral Indians, has yielded fragments of pottery, metal, copper, flint, bones and arrowheads. European trade goods found at the site such as French iron axes, knives, needles and a range of ironware, indicate an occupation from about 1620-1630.

Dr. Noble estimates there were about 1,000 Neutrals of the Niagara tribe living in 25 to 30 longhouses at the Thorold site.

"We have excavated five longhouses and estimate there may be 20 to 25 more," Dr. Noble said.

Thus far, Dr. Noble and his team of eight have discovered 26 middens (garbage dumps) and five longhouses.

The archaeologists have discovered a triple palisade on the south side of the village and expect to find a palisade on all sides of the village, except to the north which is well protected by the Escarpment.

The Thorold dig has proceeded in an atmosphere of co-operation. The Ontario Heritage Foundation provided the initial salvage funds; the developers of Woodlawn Estates, the Aldidena Co. of St. Catharines, donated the time by delaying construction, supplying snow fences and other courtesies, and will provide a bulldozer and operator for further excavation; lastly, university students and volunteer archaeologists provided the field crew to excavate this significant area.

Some archaeologists speculate that the wealth of potential anthropological and archaeological data still hidden on the numerous individual sites may represent some of the most valuable opportunities in North America for the study of European impact on the native peoples of the New World.

Recognizing this significance, the Commission, in its Proposed Plan, stipulated that "care shall be taken to avoid and preserve known archaeological sites, or areas where such sites might reasonably be expected to exist".

The Commission suggested that the Ministry of Culture and Recreation and Escarpment area municipalities give consideration to the formation of local Archaeological Conservation Advisory Committees to provide a resident source of advice to municipal councils on the preservation of archaeological resources.

Carruthers, in his report to the Commission, warned that the greatest threat to known and potential archaeological sites is development.

The Commission recognized this fact in the Proposed Plan and has pointed out that development control could be one of the best possible devices for preserving archaeological sites because, unlike traditional zoning techniques, it considers each application on its own merit.

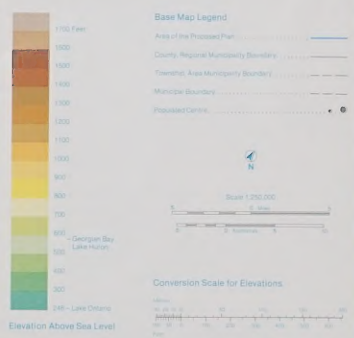
Accordingly, the Commission concluded: "Where proposed development is likely to destroy that (archaeological) resource, there should be an opportunity to sound a warning and either relocate the development or at least study the resource before development proceeds".



Ontario's Niagara Escarpment



Niagara Escarpment Commission



The Niagara Escarpment
The Niagara Escarpment is recognized as one of Canada's foremost scenic landmarks. Designated as such by the Government of Ontario in 1978, the Escarpment is a massive ridge of limestone that stretches for over 200 kilometers from Lake Huron to Lake Erie. The Escarpment is a unique landscape, characterized by its rugged terrain, diverse flora and fauna, and its historical significance. The Escarpment is a natural heritage area, and its protection is a priority for the Government of Ontario.

The Niagara Escarpment Commission
The Commission is a body of nine members, including the Minister of the Environment and the Minister of Lands and Forests. The Commission's mandate is to develop and implement a plan for the Niagara Escarpment, and to ensure that the Escarpment is protected for the benefit of present and future generations. The Commission's plan includes provisions for the protection of the Escarpment's natural heritage, its cultural heritage, and its recreational value.

The Proposed Plan for the Niagara Escarpment
The Proposed Plan for the Niagara Escarpment was developed by the Commission in November 1978. The Plan sets out the Commission's vision for the Escarpment, and provides a framework for its protection and management. The Plan includes provisions for the protection of the Escarpment's natural heritage, its cultural heritage, and its recreational value.

Land Use Policies
The Proposed Plan contains suggested land use designations and provisions for a 1,923 square kilometre (742 square mile) area extending through 46 municipalities. The Plan also recommends the creation of a Niagara Escarpment Parks System to consist of 116 parks, of which 75 per cent of the land is currently in public ownership. The Commission suggests that the province purchase an additional 11,500 hectares (28,671 acres) to complete the proposed parks system. Three types of Niagara Escarpment Parks are proposed:

- 1. **Nature Reserve Parks** — to remain in as close to a wilderness state as possible.
- 2. **Nature Environment Recreation Parks** — to provide for hiking, viewing, interpretation, camping, scientific and educational uses.
- 3. **Recreation Parks** — to offer a full range of outdoor recreation uses.

The Bruce Trail, known to hikers from around the world, is regarded as an essential component of the Niagara Escarpment Parks System — to link parks, natural features and the Escarpment. The Commission recommends that the route of the Bruce Trail be determined through a cooperative effort involving the Bruce Trail Association, village, townships, municipal councils and the Government of Ontario. Information on the Bruce Trail may be obtained from The Bruce Trail Association, P.O. Box 957, Ipperden, Ontario, L0R 1S0, telephone (416) 524-0221.

- Location of Escarpment Plaques**
- | | |
|-------------------------|----------------------------------|
| 1. The Niagara Gorge | 11. Mount Pleasant |
| 2. The Whirlpool | 12. Devil's Den |
| 3. Shaw's Point | 13. Old Fort |
| 4. Devil's Punch Bowl | 14. Kariakip Archaeological Site |
| 5. The Dundas Valley | 15. Dundas Mass |
| 6. MacIntyre Point | 16. Indian Falls |
| 7. Indian Falls | 17. Barker Falls |
| 8. Littleton Falls | 18. Littleton Falls |
| 9. Devil's River Gorge | 19. Devil's River Gorge |
| 10. Devil's River Gorge | 20. Devil's River Gorge |

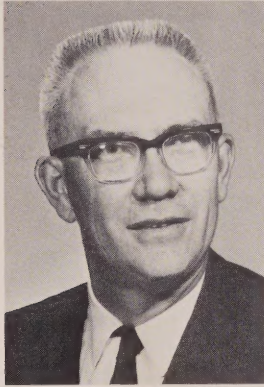
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NEW NEC MEMBERS



Donald Moyer



Bill Hunter

Two new members have been appointed as municipal representatives to the Niagara Escarpment Commission.

Bill Hunter replaces Alex Raeburn as the representative for the Regional Municipality of Peel; and Donald Moyer replaces Edgar Currie as the representative for Simcoe County.

Both appointments became effective in October 1979.

Mr. Hunter is both a Peel Regional councillor and councillor for the Town of Caledon. He is also a member of the Peel Region Planning Committee, Public Works Committee and the Credit Valley Conservation Authority. Mr. Hunter's family owns a 400 acre dairy farm in Terra Cotta.

Mr. Moyer, a retired high school science teacher and graduate of McMaster University, is a councillor and deputy reeve in Nottawasaga Township, Simcoe County. He is the past president of the Science Teachers' Association of Ontario. Mr. Moyer now owns and operates a beef farm in Nottawasaga.

